

WATER PROJECTS

WATER DISTRIBUTION SYSTEM PROJECTS

FUNDING MATRIX FOR WATER DISTRIBUTION SYSTEM PROJECTS

PROJ NO.	FUND NO.	PROJECT TITLE	FUNDING SOURCE	TOTAL BUDGET	FUTURE YEAR BUDGET AMOUNTS						
					YEAR 1 2008-09	YEAR 2 2009-2010	YEAR 3 2010-2011	YEAR 4 2011-2012	YEAR 5 2012-2013	YEAR 6-10 2013-2018	BUILDOUT 2018-2023
		AVIARA PARKWAY AT PLUM TREE	WATER REPL	475,700				475,700			
		BUENA VISTA PUMP STATION IMPROVEMENTS (STUDY)	WATER REPL	100,000	100,000						
3842	38421	CALAVERA HILLS WATER BOOSTER STATION STANDBY GENERATOR	WATER CONN	485,200			54,100	431,100			
5000	50001	CANNON ROAD EAST OF EL CAMINO REAL - Reimb	WATER CONN	760,800							
		CARLSBAD BOULEVARD - SOUTH OF AVENIDA ENCINAS	WATER REPL	917,200				917,200			
5007	50071	CATHODIC PROTECTION PROGRAM	WATER REPL	1,246,700		475,800	146,900				
		COLLEGE BOULEVARD - CANNON TO BADGER LANE	WATER CONN	1,066,000	1,066,000						
		COLLEGE BOULEVARD (ECR TO CANNON ROAD) - Reimb	WATER CONN	530,000	530,000						
		CRESTVIEW DRIVE TRANSMISSION MAIN	WATER REPL	155,800				32,500	123,300		
		D RESERVOIR DRAINAGE IMPROVEMENTS (STUDY)	WATER REPL	135,000	135,000						
3376	33762	D RESERVOIR - PHASE II	WATER CONN	6,410,100						6,410,100	
3376	33761	D RESERVOIR - PHASE II	WATER REPL	2,136,600						2,136,600	
3955	39551	DEMOLITION OF WATER FACILITIES AT PAJAMA DRIVE	WATER REPL	95,500							
		DESALINATION GROUNDWATER/SEAWATER STUDY	WATER REPL	744,400						744,400	
3446	34461	EL CAMINO REAL - PALOMAR AIRPORT ROAD SOUTH	WATER REPL	3,225,000							
5003	50031	EL CAMINO REAL BETWEEN COLLEGE AND JACKSPAR	WATER CONN	971,275							
3843	38431	EL CAMINO REAL TRANSMISSION MAIN FROM FARADAY TO COUGAR DRIVE	WATER REPL	774,100							
3911	39111	EL CAMINO REAL/CARLSBAD VILL DR PIPELINE REPL.	WATER REPL	269,975							
3912	39121	EL FUERTE - NORTH OF LOKER - (Reimb)	WATER CONN	250,000	101,250						
		EL FUERTE AND CORINTIA STREET	WATER REPL	161,700				161,700			
3900	39001	ELLERY WATER PUMP PROJECT	WATER REPL	205,900							
3622	36223	FARADAY AVENUE - ORION TO MELROSE WATERLINE - (Reimb - See Streets Section)	WATER CONN	887,210	790,000						
		FARADAY AVENUE EXTENSION - Reimb	WATER CONN	776,000		776,000					
		GROUNDWATER DEVELOPMENT - SAN LUIS REY RIVER (STUDY)	WATER REPL	55,000	55,000						
3821	38211	LAKE CALAVERA RESERVOIR IMPROVEMENTS	WATER REPL	6,646,908							
5005	50051	MAERKLE DAM FLOATING COVER DRAINPIPE REPLACE.	WATER REPL	200,000							
5009	50091	MAERKLE FACILITY IMPROVEMENTS	WATER REPL	1,870,200							
5004	50042	MAERKLE PUMP STATION IMPROVEMENTS	WATER CONN	771,325						716,900	
5004	50041	MAERKLE PUMP STATION IMPROVEMENTS	WATER REPL	771,325						716,900	
5006	50061	MAERKLE RESERVOIR BRIDGE REPLACEMENT	WATER REPL	328,750	300,000						
		MAERKLE RESERVOIR STORAGE (TAP #2)	WATER CONN	14,244,500				14,244,500			
5001	50011	MAERKLE TRANSMISSION MAIN	WATER REPL	4,875,000	4,380,000						
		MARRON ROAD - PRESSURE REGULATING STATION TO OCEANSIDE	WATER CONN	767,200							767,200
		MASTER PLAN UPDATE	WATER CONN	500,000	500,000						
		MELROSE DRIVE - PALOMAR AIRPORT ROAD TO FARADAY - (Reimb)	WATER CONN	1,475,000	1,475,000						
3904	39041	MISCELLANEOUS PIPELINE REPLACEMENT PROJECTS	WATER REPL	1,876,700		433,000	443,700				
3822	38221	MISCELLANEOUS WATER RESERVOIR FENCING	WATER REPL	197,399							
		MISCELLANEOUS WATER VALVE REPAIRS/REPLACEMENTS	WATER REPL	250,000	125,000	125,000					
3531	35311	OCEANSIDE INTERTIE UPGRADE	WATER REPL	114,600			114,600				
3910	39102	PAR/ECR PUMP STATION	WATER CONN	997,350							
3910	39101	PAR/ECR PUMP STATION	WATER REPL	990,350							
		POINSETTIA LANE - EL CAMINO REAL TO SKIMMER CT (Reimb)	WATER CONN	125,700						125,700	

FUNDING MATRIX FOR WATER DISTRIBUTION SYSTEM PROJECTS (Continued)

PROJ NO.	FUND NO.	PROJECT TITLE	FUNDING SOURCE	TOTAL BUDGET	FUTURE YEAR BUDGET AMOUNTS						
					YEAR 1 2008-09	YEAR 2 2009-2010	YEAR 3 2010-2011	YEAR 4 2011-2012	YEAR 5 2012-2013	YEAR 6-10 2013-2018	BUILDOUT 2018-2023
		POINSETTIA LANE - SKIMMER CT TO CASSIA	WATER REPL	489,100						489,100	
		POINSETTIA LANE - SKIMMER CT TO CASSIA	WATER CONN	383,600						383,600	
		POINSETTIA LANE EAST OF BLACK RAIL ROAD 12"	WATER CONN	230,500						230,500	
		POINSETTIA LANE EAST OF BLACK RAIL ROAD 12"	WATER REPL	230,400						230,400	
		PRESSURE REDUCING STATION REPLACEMENT	WATER REPL	1,102,000	1,102,000						
3858	38581	RANCHO CARRILLO OVERSIZING/EXTENSION	WATER CONN	152,700							
3915	39151	TANGLEWOOD PRESSURE REDUCING STATION REPLACEMENT	WATER REPL	354,750							
5008	50081	TRI-AGENCIES WATER TRANSMISSION PIPELINE REPLACEMENT	WATER REPL	5,605,000	330,000	5,000,000					
3664	36641	WATER SYSTEM INTERTIE CONNECTION	WATER REPL	439,000							

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – AVIARA PARKWAY

PROJECT NAME

NONE
PROJECT NO.

#19

PROJECT LOCATION MAP:



PROJECT LOCATION:

Aviara Parkway at Plum Tree, north to Mariposa Street, then east to Sapphire Drive.

PROJECT DESCRIPTION:

Construct 3,100 feet of 8-inch watermain.

PROJECT NEED:

Provide redundant supply to residential development.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$378,700	Water Replacement
Adm/Design/Insp	\$97,000	Water Replacement
Total Cost =	\$475,700	

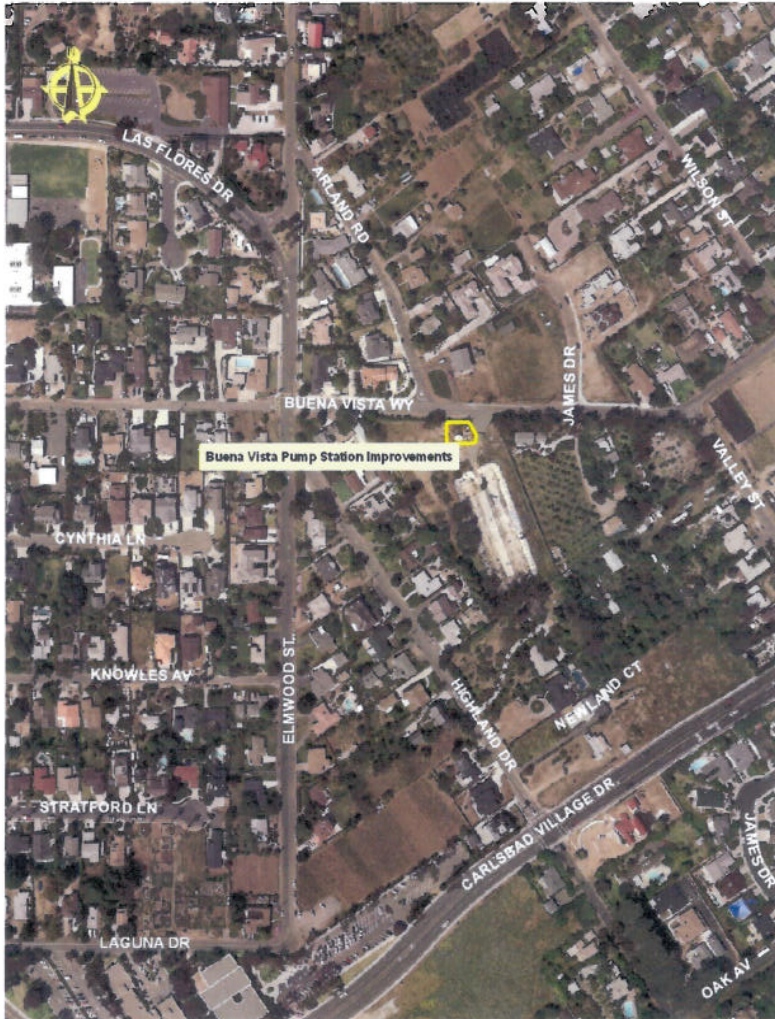
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – BUENA VISTA PUMP STATION IMPROVEMENTS

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

1400 block of Buena Vista Way east of Arland Drive.

PROJECT DESCRIPTION:

Assess the condition and replacement or upgrade needs of the existing water facilities at the Buena Vista Pump Station.

PROJECT NEED:

The existing water pump station is over 30 years old and various components have previously failed. The facility needs to be upgraded to current standards and codes.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Study	\$100,000	Water Replacement
Total Cost =	\$100,000	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - CALAVERA HILLS WATER BOOSTER STATION

STANDBY GENERATOR

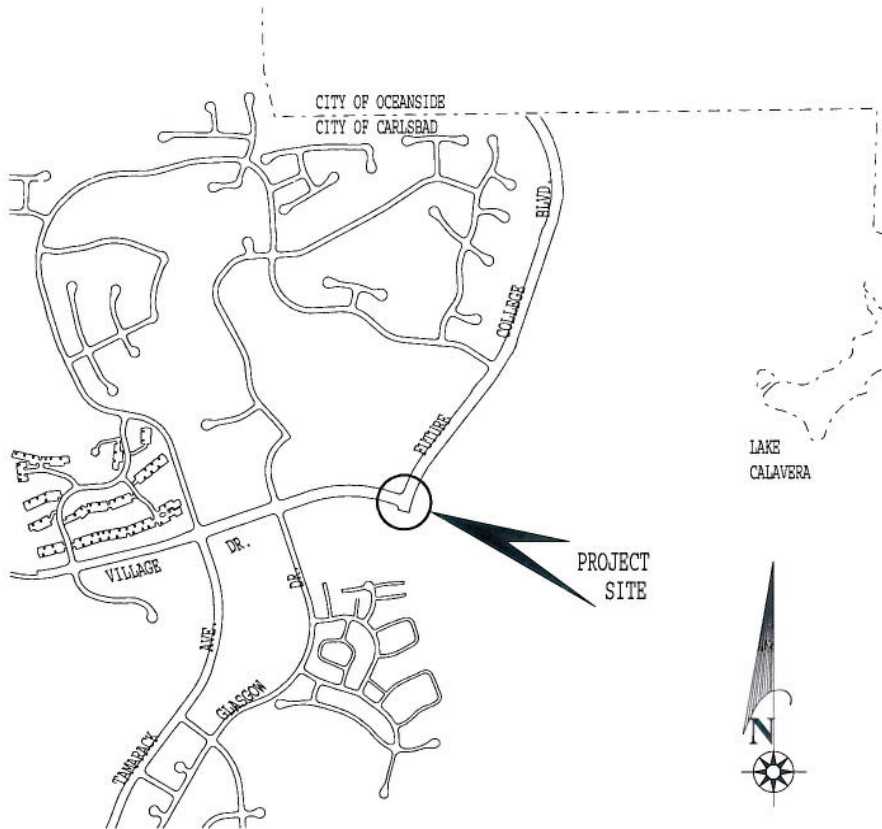
PROJECT NAME

3842

PROJECT NO.

#37

PROJECT LOCATION MAP:



PROJECT LOCATION:

College Boulevard at Carlsbad Village Drive.

PROJECT DESCRIPTION:

Furnish and install standby generator and generator building at Calavera Hills Booster Pump Station.

PROJECT NEED:

The existing booster station at this location does not have backup power. If an electrical power outage occurs, the pump station will not operate. The addition of a permanent generator at this facility will increase reliability in accordance with Council goals.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Adm/Insp	\$105,000	Water Connection
Construction	\$380,200	Water Connection
Total Cost =	\$485,200	

CAPITAL PROJECT DESCRIPTION

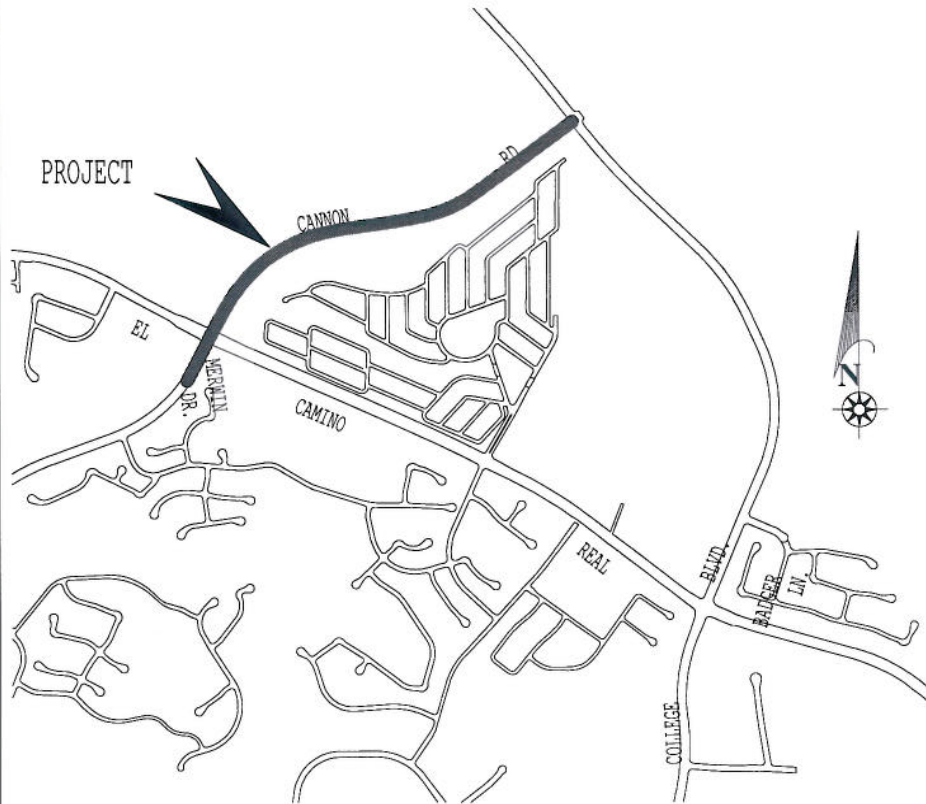
WATER DISTRIBUTION SYSTEM – CANNON ROAD EAST OF EL CAMINO REAL

PROJECT NAME

5000
PROJECT NO.

#9

PROJECT LOCATION MAP:



PROJECT LOCATION:

In Cannon Road from Merwin Drive east to intersection with College Boulevard.

PROJECT DESCRIPTION:

Construct 4,400 feet of 12-inch watermain.

PROJECT NEED:

Provides water supply for new development and creates 375 Zone loop east of El Camino Real. Funds will be used to reimburse developer required to construct 12-inch watermain.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$585,800	Water Connection
Adm/Design/Insp	\$175,000	Water Connection
Total Cost =	\$760,800	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – CARLSBAD BOULEVARD SOUTH OF AVENIDA ENCINAS

PROJECT NAME

NONE
PROJECT NO.

#22

PROJECT LOCATION MAP:



PROJECT LOCATION:

Carlsbad Boulevard from Avenida Encinas south to District boundary.

PROJECT DESCRIPTION:

Construct 4,900 feet of 12-inch watermain.

PROJECT NEED:

Provides a two-way emergency connection with San Diego Water District 240 Zone. Can also supply water to 318 Zone west of I-5.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$717,200	Water Replacement
Adm/Design/Insp	\$200,000	Water Replacement
Total Cost =	\$917,200	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – CATHODIC PROTECTION PROGRAM

PROJECT NAME

5007
PROJECT NO.

PROJECT LOCATION MAP:

VARIOUS LOCATIONS THROUGHOUT
THE CARLSBAD MUNICIPAL WATER DISTRICT

PROJECT LOCATION:

Various locations throughout the Carlsbad Municipal Water District.

PROJECT DESCRIPTION:

Design and construct corrosion control improvements for existing domestic water pipelines, recycled water pipelines, and reservoir associate pipelines.

PROJECT NEED:

A Cathodic Protection Inspection and Testing Report completed in 2006 identified existing metallic pipelines with no cathodic protection and existing cathodic protection systems were not operating. Corrosion is a major cause of pipeline failure. Mitigating the corrosion process extends pipeline service life, reduces pipeline failures and saves future maintenance and replacement costs.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$143,850	Water Capital Replacement
Construction	\$1,102,850	Water Capital Replacement
Total Cost =	\$1,246,700	

CAPITAL PROJECT DESCRIPTION

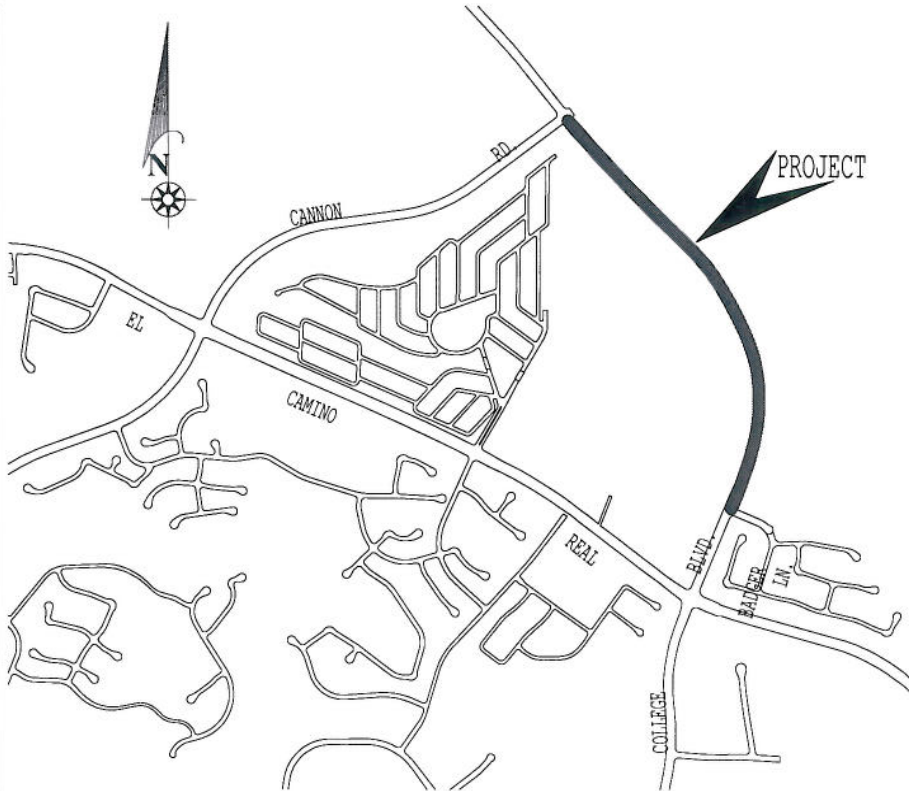
WATER DISTRIBUTION SYSTEM – COLLEGE BOULEVARD – CANNON ROAD TO BADGER LANE

PROJECT NAME

NONE
PROJECT NO.

#8

PROJECT LOCATION MAP:



PROJECT LOCATION:

College Boulevard from Cannon Road south to Badger Lane.

PROJECT DESCRIPTION:

Construct 4,130 feet of 12-inch watermain.

PROJECT NEED:

Provides water supply for new development and creates 375 Zone loop east of El Camino Real.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$601,749	Water Connection
Adm/Design/Insp	\$145,200	Water Connection
Total Cost =	\$1,066,000	

CAPITAL PROJECT DESCRIPTION

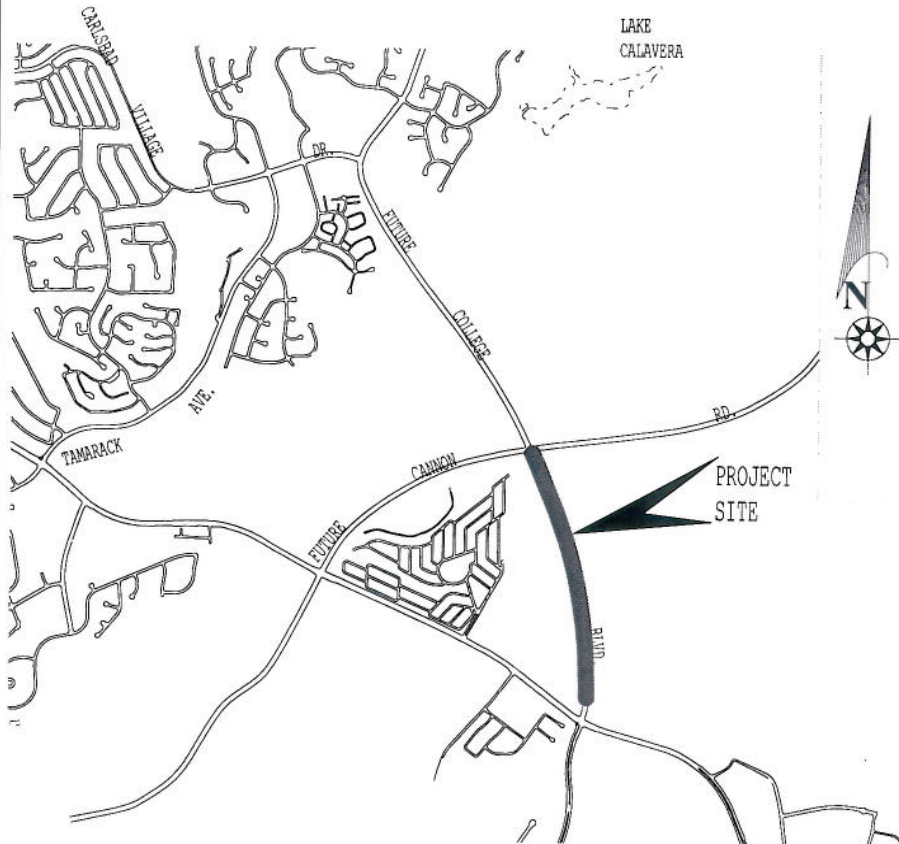
WATER DISTRIBUTION SYSTEM - COLLEGE BOULEVARD (ECR TO CANNON ROAD)

PROJECT NAME

NONE
PROJECT NO.

#7

PROJECT LOCATION MAP:



PROJECT LOCATION:

College Boulevard from 400' north of El Camino Real northerly to future Cannon Road.

PROJECT DESCRIPTION:

Install 4,000 LF of 16-inch line.

(In 490 H.G. Zone)

PROJECT NEED:

To meet the future demands of the area from LFMP Zones 14 and 15. Developer to pay 50% of cost.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$530,000	Water Connection Fee
Design/Construction	\$530,000 *	Other - Developer
Total Cost =	\$1,060,000	

*Developer cost not shown in CIP schedules.

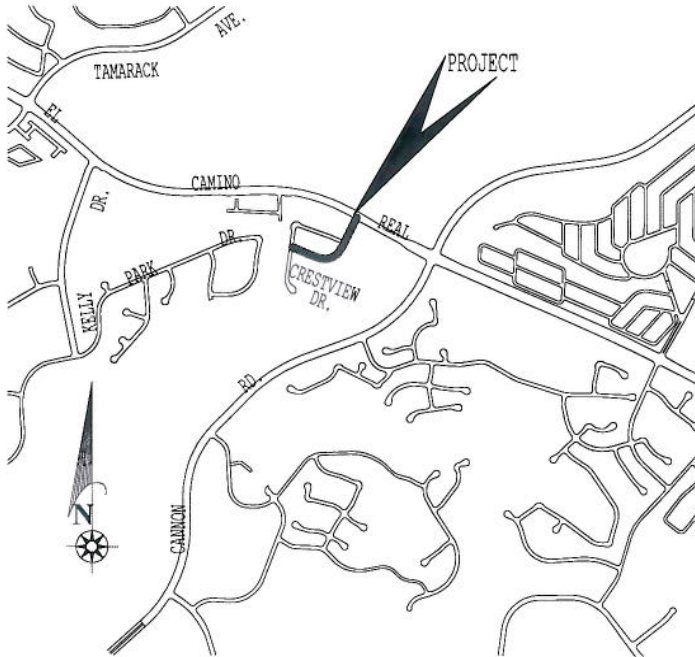
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – CRESTVIEW DRIVE TRANSMISSION MAIN

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Crestview Drive west of El Camino Real.

PROJECT DESCRIPTION:

Construct 600 feet of 8-inch diameter pipeline.

PROJECT NEED:

To provide a redundant water supply to existing residential area.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$30,000	Water Replacement
Construction	\$125,800	Water Replacement
Total Cost =	\$155,800	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – D RESERVOIR DRAINAGE IMPROVEMENTS

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

D Reservoir site along Black Rail Road.

PROJECT DESCRIPTION:

Construct on-site drainage improvements to accommodate stormwater runoff from the D Reservoir site.

PROJECT NEED:

Existing stormwater runoff from the D Reservoir site has caused erosion downstream affecting private property.

FINANCING:

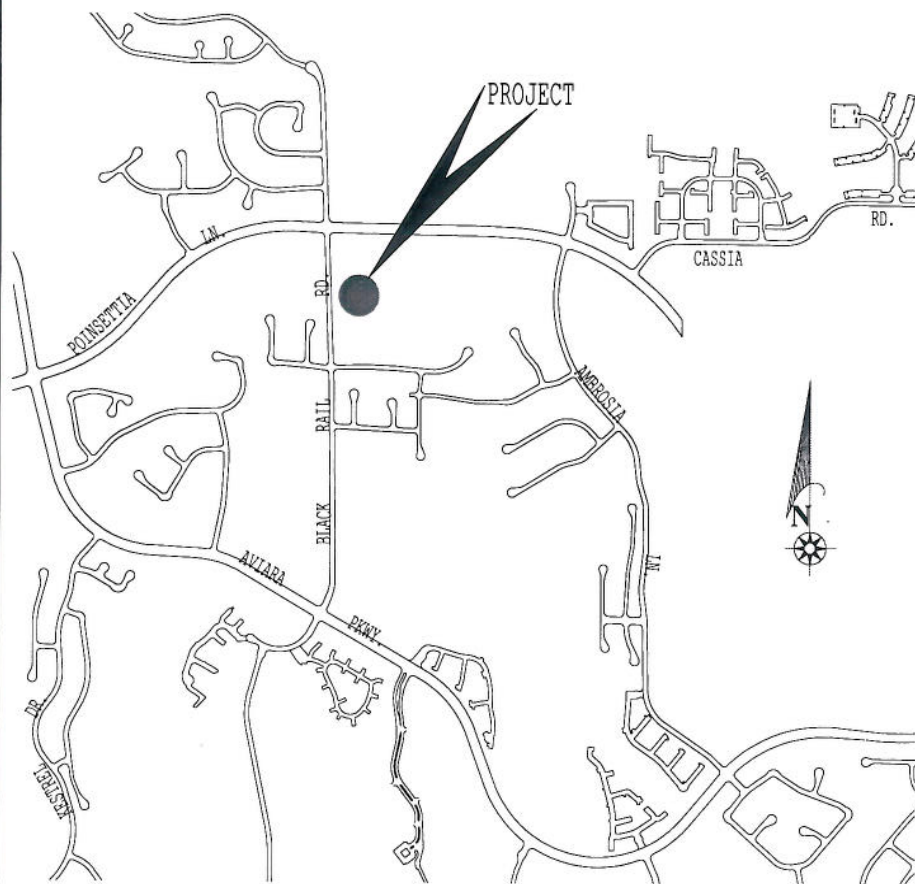
<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Environmental	\$25,000	Water Replacement
Construction	\$110,000	Water Replacement
Total Cost =	\$135,000	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – "D" RESERVOIR PHASE II PROJECT NAME

3376
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Adjacent to existing "D" Reservoir.

PROJECT DESCRIPTION:

Construct new 8.5 MG water reservoir to service 375 Zone.

PROJECT NEED:

Provide additional daily storage within the distribution system for ultimate demands.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$6,410,000	Water Connection
Construction	\$2,136,600	Water Replacement
Total Cost =	\$8,546,600	

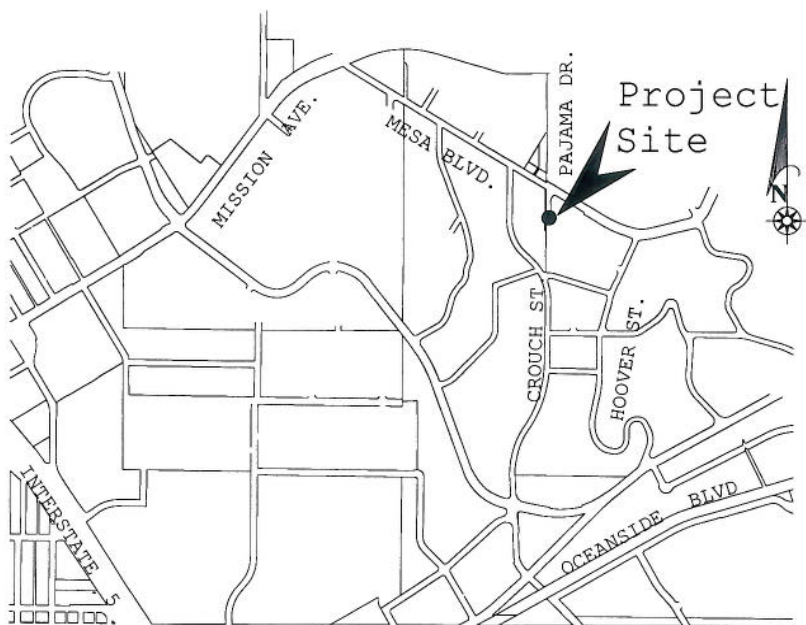
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – DEMOLITION OF WATER FACILITIES AT PAJAMA DRIVE

PROJECT NAME

3955
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Corner of Pajama Drive and Mesa Boulevard in the City of Oceanside.

PROJECT DESCRIPTION:

Remove an existing abandoned surge tank and a control building.

PROJECT NEED:

Facilities were abandoned in 1971 when Carlsbad began using imported water and quit pumping from the San Luis Rey River Valley.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$11,500	Water Replacement
Construction	\$65,000	Water Replacement
Admin/Inspection	\$19,000	Water Replacement
Total Cost =	\$95,500	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – DESALINATION GROUNDWATER/SEAWATER STUDY

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:

N/A

PROJECT LOCATION:

Not Applicable.

PROJECT DESCRIPTION:

Preparation of a report investigating various methods of treating City owned groundwater located in the San Luis aquifer in Oceanside and identifying conveyance methods to transport the treated water to Carlsbad. Also included is a study of the feasibility of constructing a seawater desalination plant and identifying potential sites upon which to construct a desalination plant.

PROJECT NEED:

To develop supplemental source of water.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Planning Study	\$744,400	Water Replacement
Total Cost =	\$744,400	

CAPITAL PROJECT DESCRIPTION

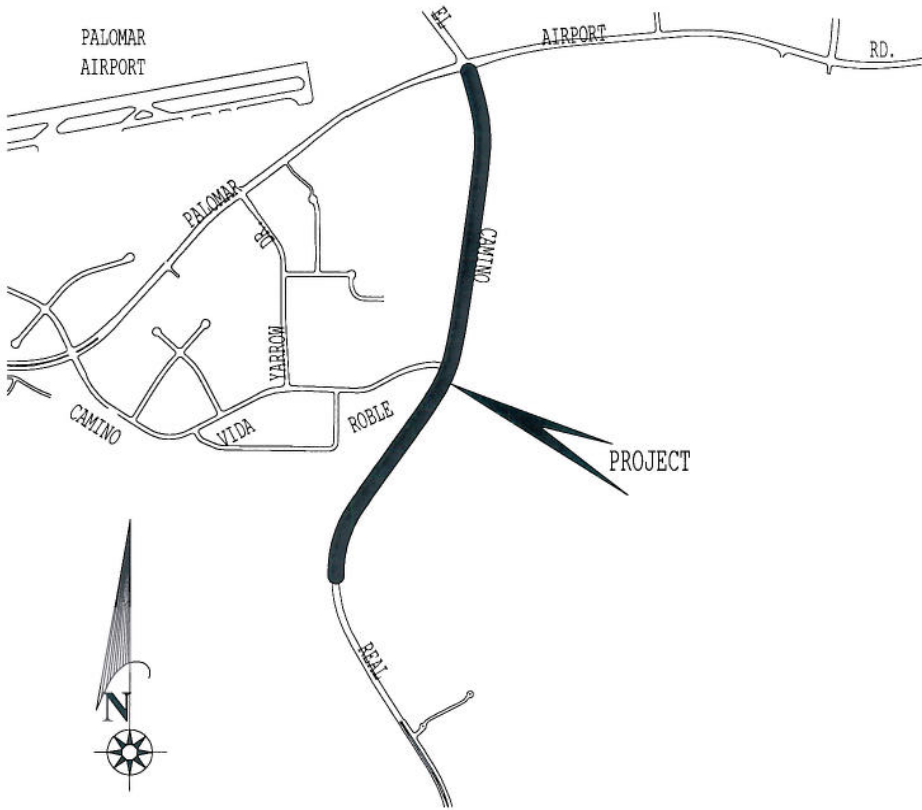
WATER DISTRIBUTION SYSTEM - EL CAMINO REAL (PALOMAR AIRPORT ROAD SOUTH)

PROJECT NAME

3446
PROJECT NO.

#16

PROJECT LOCATION MAP:



PROJECT LOCATION:

El Camino Real - Palomar Airport Road South 6,100 LF.

PROJECT DESCRIPTION:

Replace 20" steel water line in El Camino Real South 6,100 LF with a new 24-inch water line.

PROJECT NEED:

Replacing old steel water line to avoid high maintenance costs and extend pipeline to new Poinsettia Lane road alignment.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$305,000	Water Replacement
Construction	\$2,620,000	Water Replacement
Admin/Inspection	\$300,000	Water Replacement
Total Cost =	\$3,225,000	

CAPITAL PROJECT DESCRIPTION

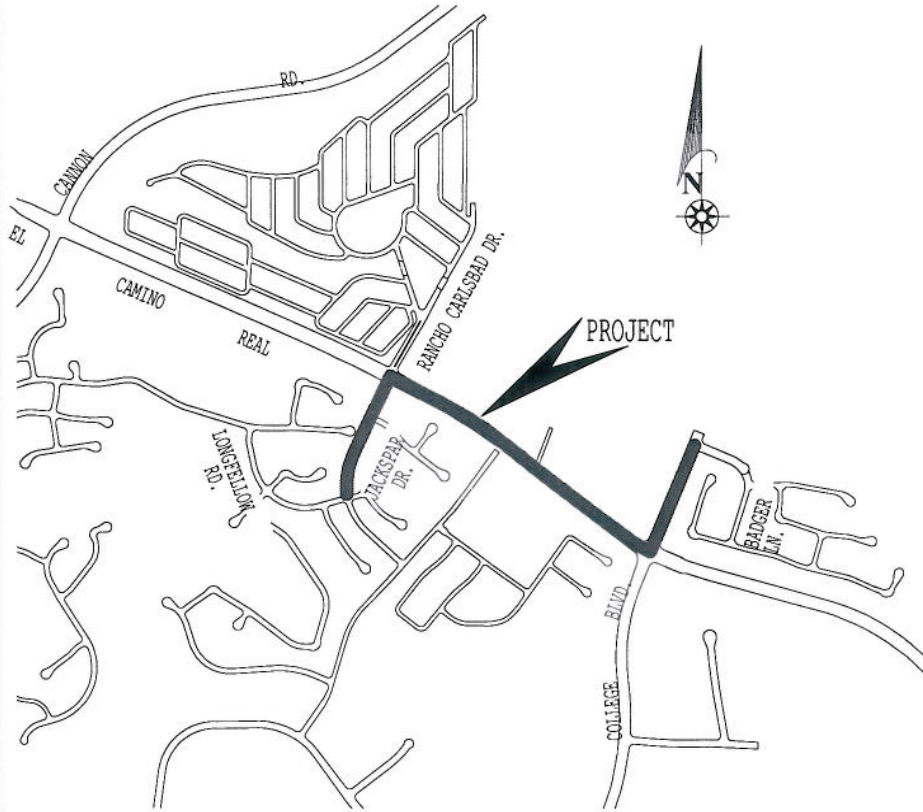
WATER DISTRIBUTION SYSTEM – EL CAMINO REAL BETWEEN COLLEGE & JACKSPAR

PROJECT NAME

5003
PROJECT NO.

#4

PROJECT LOCATION MAP:



PROJECT LOCATION:

Jackspar Drive from Longfellow to El Camino Real, south on El Camino Real to College Boulevard, and northeast on College Boulevard to Badger Lane.

PROJECT DESCRIPTION:

Construct 4,000 feet of 12-inch watermain.

PROJECT NEED:

Connects isolated portions of 375 Zone and provides for supply from Maerkle Reservoir for existing and future development.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$76,000	Water Connection
Construction	\$856,350	Water Connection
Adm/Insp	\$38,925	Water Connection
Total Cost =	\$971,275	

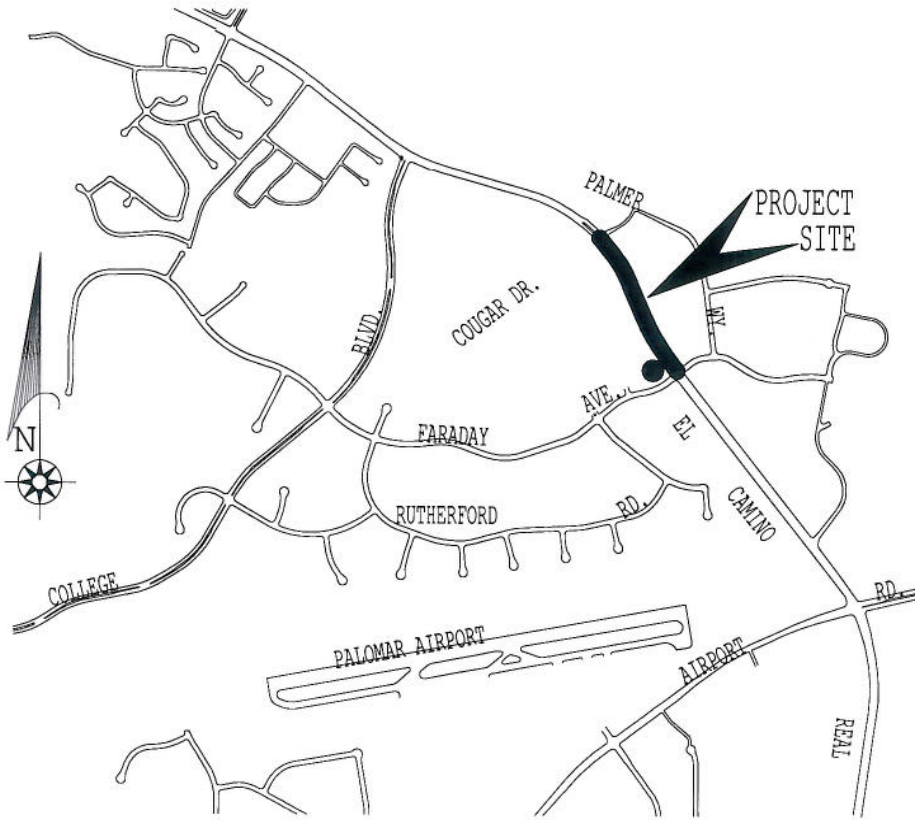
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - EL CAMINO REAL TRANSMISSION MAIN FROM FARADAY AVENUE TO COUGAR DRIVE

PROJECT NAME

3843
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

El Camino Real from Faraday Avenue north to Cougar Drive and pressure reducing station north side of Faraday Avenue.

PROJECT DESCRIPTION:

Construction of 1,500 feet of 30-inch diameter transmission main and pressure reducing station.

PROJECT NEED:

Larger diameter pipe reduces pressure loss during emergency supply to 550 Zone from Maerkle Reservoir.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$50,000	Water Replacement
Construction	\$724,100	Water Replacement
Total Cost =	\$774,100	

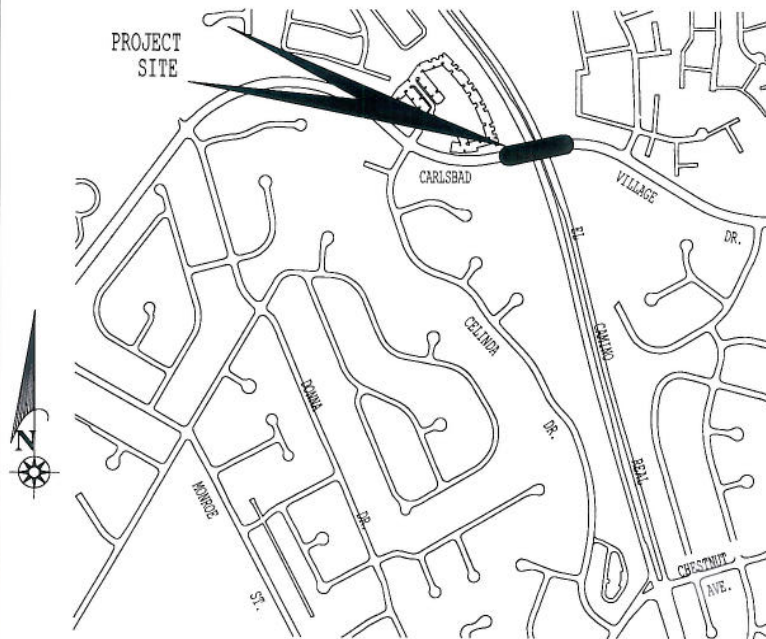
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – EL CAMINO REAL/CARLSBAD VILLAGE DRIVE WATER PIPELINE REPLACEMENT

PROJECT NAME

3911
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

El Camino Real at Carlsbad Village Drive.

PROJECT DESCRIPTION:

Replace 200 feet of existing 10-inch diameter water pipeline crossing El Camino Real at Carlsbad Village Drive. The pipeline shall be replaced between existing pressure reducing stations. Existing pipeline cannot be repaired.

PROJECT NEED:

Existing pipeline has corroded and cannot be repaired because of depth and interference with existing storm drain. This pipeline supplies water to an existing pressure reducing station supplying water to the 330 pressure zone. Replacing this pipeline will ensure water redundancy and reliability in the services area.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$16,000	Water Replacement
Construction	\$242,935	Water Replacement
Admin/Inspection	\$11,040	Water Replacement
Total Cost =	\$269,975	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - EL FUERTE (NORTH OF LOKER)

PROJECT NAME

3912

PROJECT NO.

#13

PROJECT LOCATION MAP:



PROJECT LOCATION:

El Fuerte Avenue between Loker north to future Faraday Avenue.

PROJECT DESCRIPTION:

Install 2,200 LF of 16-inch line.

(In 700-550 H.G. Zone).

PROJECT NEED:

To meet the future demands of the area. Developer to pay 75% of the cost. Provides looped supply to new North 700 Zone.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$250,000	Water Connection Fee
Design/Construction	\$246,900 *	Other - Developer
Total Cost =	\$496,900	

*Developer cost not shown in CIP schedules.

CAPITAL PROJECT DESCRIPTION

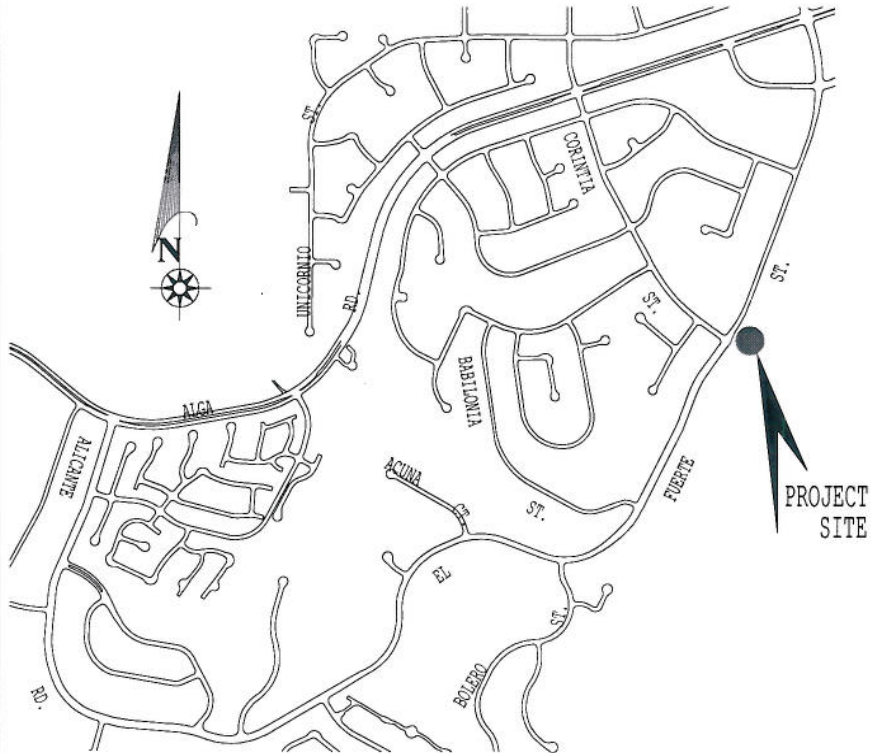
WATER DISTRIBUTION SYSTEM – EL FUERTE AND CORINTIA STREET

PROJECT NAME

PROJECT NO.

#21

PROJECT LOCATION MAP:



PROJECT LOCATION:

Intersection of El Fuerte and Corintia Street.

PROJECT DESCRIPTION:

Construct Pressure Reducing Station.

PROJECT NEED:

Provide redundant water supply to 680,580 South and 510 Zones.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$126,700	Water Replacement
Adm/Design/Insp	\$35,000	Water Replacement
Total Cost =	\$161,700	

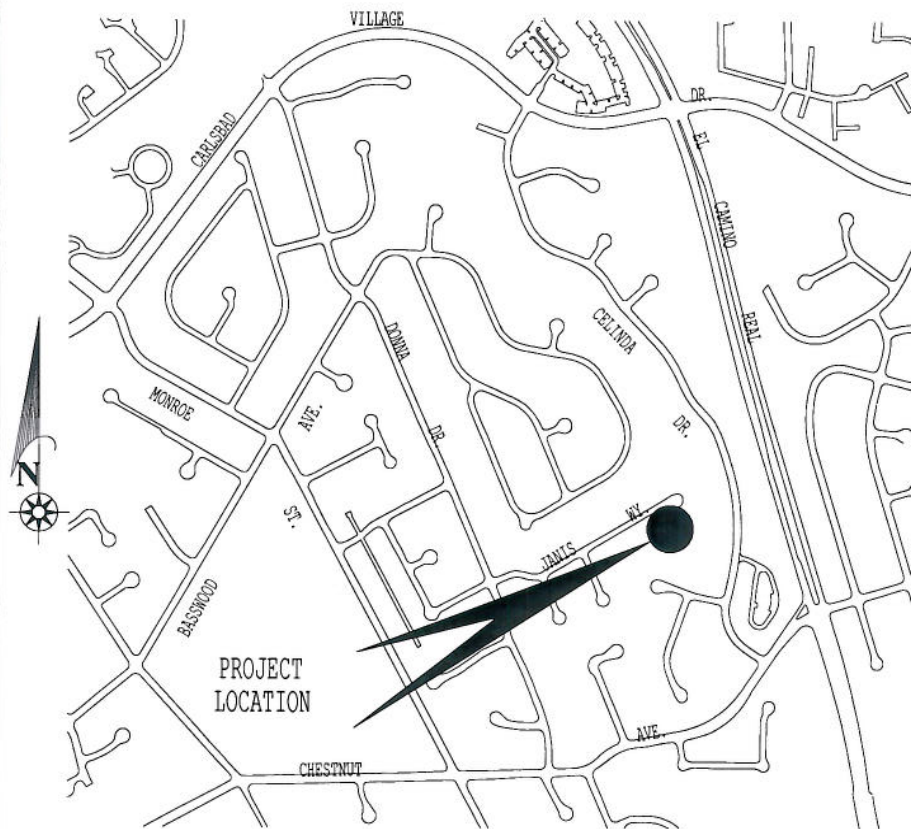
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – ELLERY WATER PUMP PROJECT

PROJECT NAME

3900
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Ellery Pump Station – Janis Way.

PROJECT DESCRIPTION:

The Water District's Ellery Pump Station is designed to maintain adequate flow during fire demands and boost pressure in the event of a significant drop in pressure or increase in demand. The pump station operates from a motor control center that has a service life in excess of twenty years. The scope of this project is the replacement of the pump station's motor control center.

PROJECT NEED:

The motor control center for the Ellery Pump Station has over twenty years of service life. Its design is outdated, major components are obsolete and, as a result, repairs may not be possible. Replacement of the motor control center will ensure reliability, efficiency, availability of parts and the ability to pull maintenance in a safe and timely manner.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$30,000	Water Replacement
Construction	\$155,900	Water Replacement
Admin/Inspection	\$20,000	Water Replacement
Total Cost =	\$205,900	

CAPITAL PROJECT DESCRIPTION

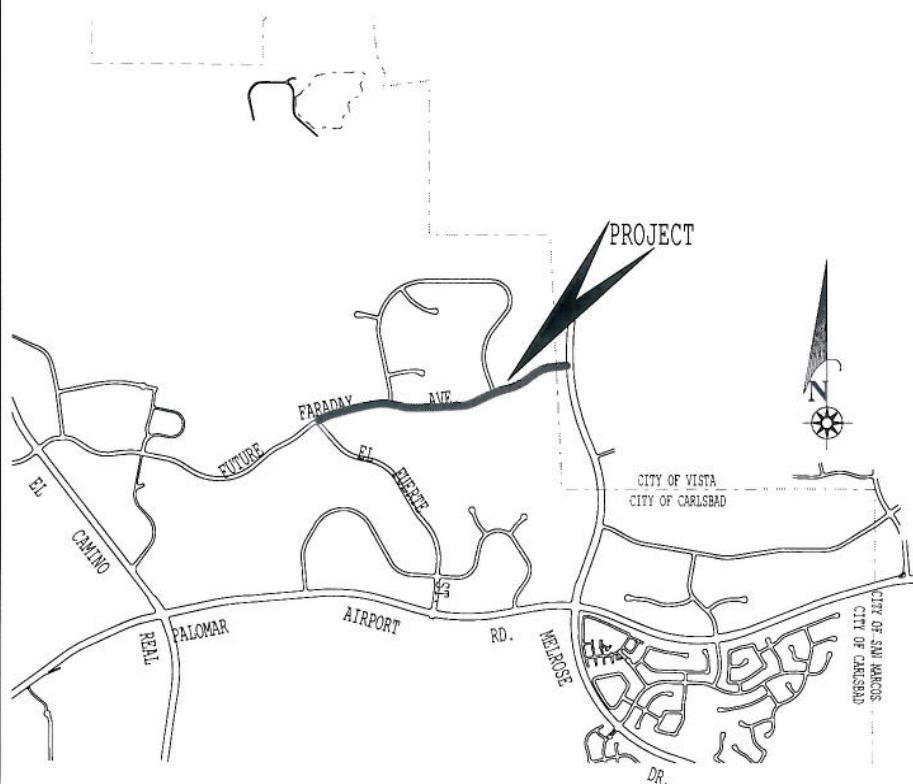
WATER DISTRIBUTION SYSTEM – FARADAY AVENUE EXTENSION

PROJECT NAME

NONE
PROJECT NO.

#14

PROJECT LOCATION MAP:



PROJECT LOCATION:

In future Faraday Avenue extension between El Fuerte and Melrose Avenue.

PROJECT DESCRIPTION:

Construct 3,600 feet of 16-inch watermain.

PROJECT NEED:

Provides looped study to LFMZ Zone 16 and supply to 550 Zone from 700 to 550 PRV. Funds will be used to reimburse developer for construction of 16-inch watermain.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$609,000	Water Connection
Adm/Design/Insp	\$167,000	Water Connection
Total Cost =	\$776,000	

CAPITAL PROJECT DESCRIPTION

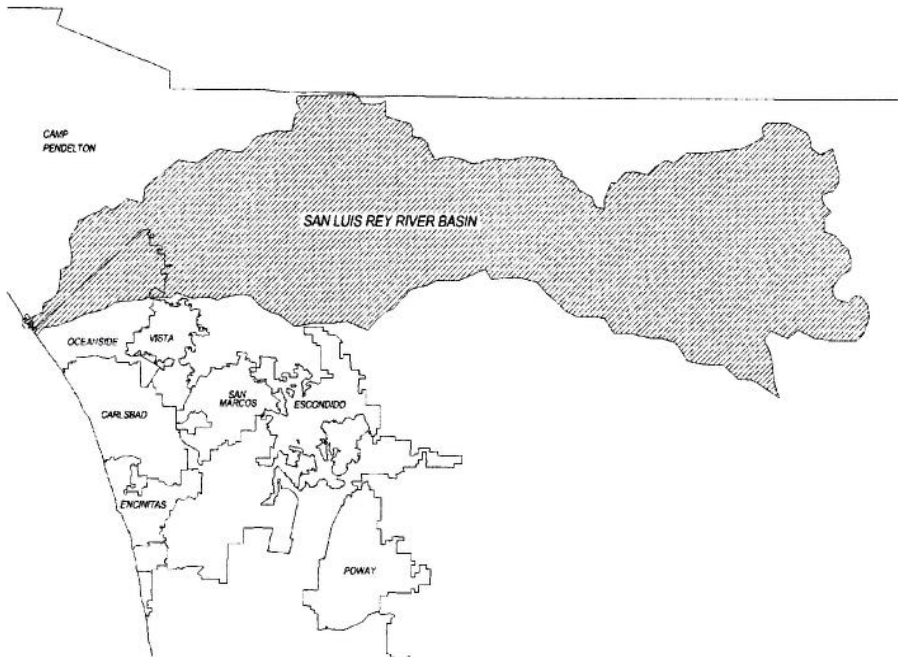
WATER DISTRIBUTION SYSTEM – GROUNDWATER DEVELOPMENT IN SAN LUIS REY RIVER BASIN

PROJECT NAME

NONE
PROJECT NO.

#19

PROJECT LOCATION MAP:



PROJECT LOCATION:

San Luis Rey River Groundwater Basin

PROJECT DESCRIPTION:

Study Carlsbad Municipal Water District's groundwater rights in the San Luis Rey River Groundwater Basin.

PROJECT NEED:

Conduct a study to clarify, define, support, and protect CMWD's development of its water rights in the San Luis Rey River Groundwater Basin.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Study	\$55,000	Water Replacement
Total Cost =	\$55,000	

CAPITAL PROJECT DESCRIPTION

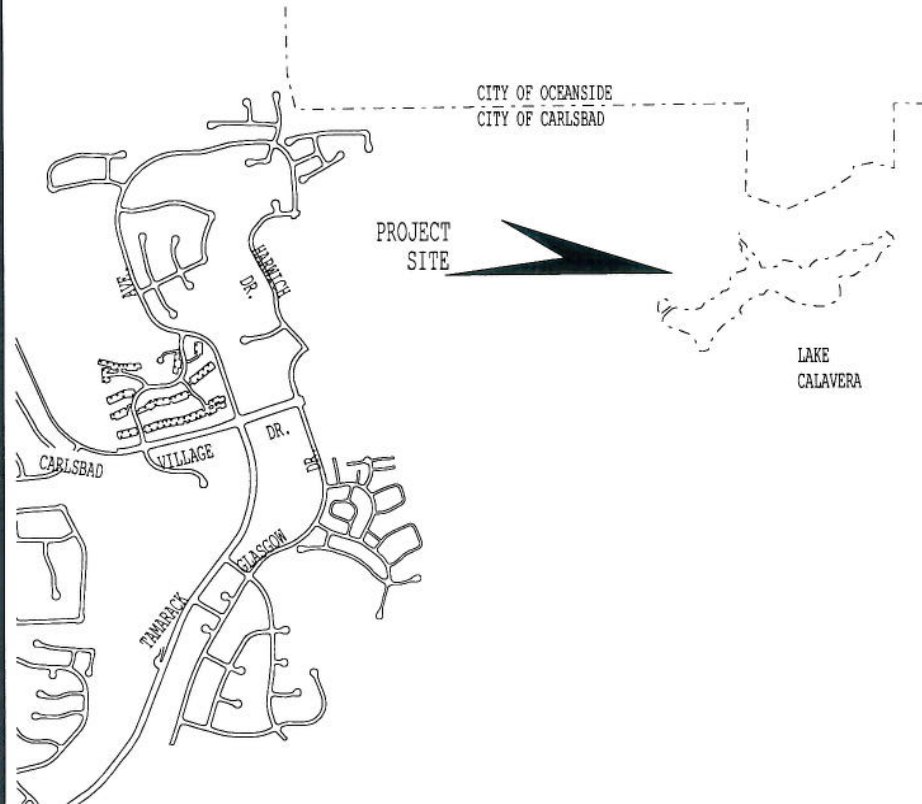
WATER DISTRIBUTION SYSTEM - LAKE CALAVERA RESERVOIR IMPROVEMENTS

PROJECT NAME

3821

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Lake Calavera in the northeast quadrant of the City.

PROJECT DESCRIPTION:

Replace outlet tower valves and piping to restore function. Repair existing spillway and channel to improve flow, safety, and access. Upgrade existing access road and improve security with fencing and gates.

PROJECT NEED:

The existing valves located within the outlet tower have failed and water is presently draining from the reservoir and cannot be stopped. Left unrepaired, the lake will completely dry up and does not comply with dam safety requirements. The walkway structure to the outlet tower was removed due to safety issues, but direct access to the outlet structure needs to be restored for maintenance purposes. Repair of the outlet structure will also allow Calavera Dam to function as a flood control retention facility to help alleviate potential downstream flooding in the area of the Rancho Carlsbad Mobile Home Park.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Studies	\$816,000	Water Replacement
Construction	\$4,654,235	Water Replacement
Environmental	\$335,000	Water Replacement
Admin/Inspection	\$292,000	Water Replacement
Monitoring & Maintenance	\$549,673	Water Replacement
Total Cost =	\$6,646,908	

CAPITAL PROJECT DESCRIPTION

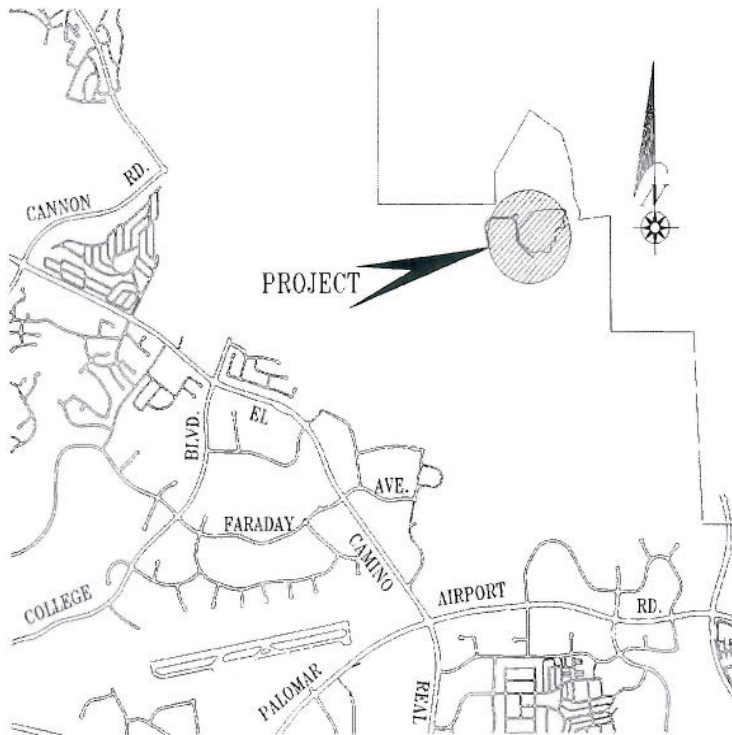
WATER DISTRIBUTION SYSTEM – MAERKLE DAM FLOATING COVER

PROJECT NAME

NONE
PROJECT NO.

#14

PROJECT LOCATION MAP:



PROJECT LOCATION:

Maerkle Dam.

PROJECT DESCRIPTION:

The project covers the design and construction of a rainwater removal system.

PROJECT NEED:

The existing cover was installed in 1998 and has reached its life expectancy. The current system is experiencing hose leaks and pump failures. Since the reservoir contains treated drinking water, failure of the rainwater system could expose the CMWD to possible fines.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$200,000	Water Replacement
Total Cost =	\$200,000	

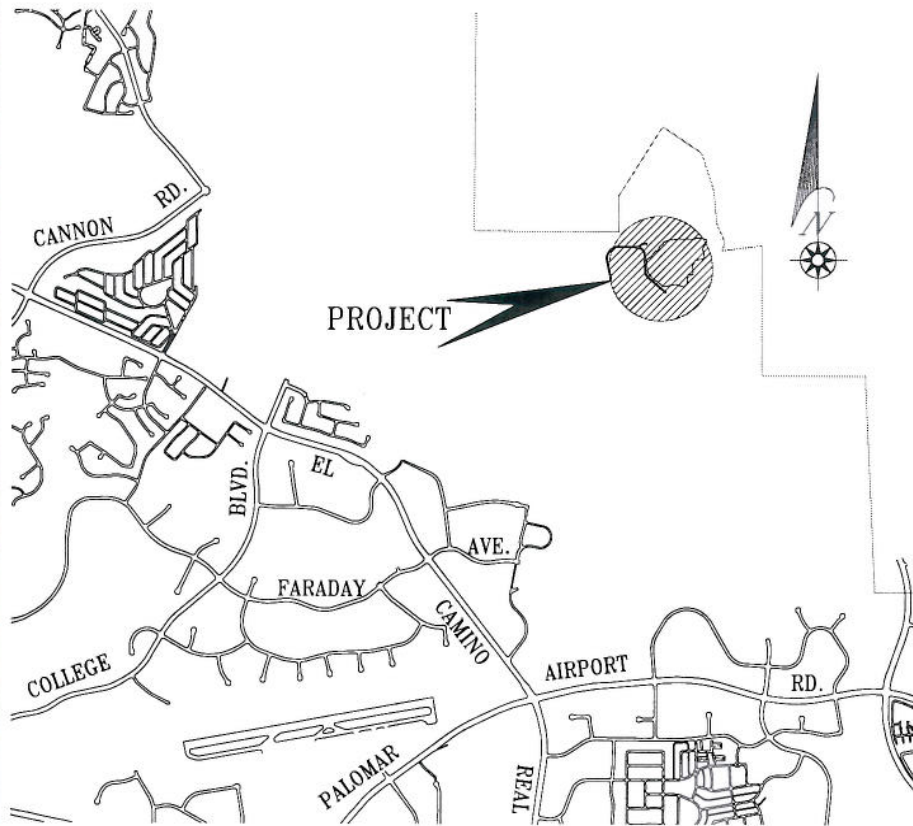
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – MAERKLE RESERVOIR IMPROVEMENTS

PROJECT NAME

5009
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

At Maerle Reservoir.

PROJECT DESCRIPTION:

Replace the existing wet chlorine gas scrubbers with new dry chlorine gas scrubbers. The existing units are requiring increased attention to remain operable and have reached the end of their useful life.

PROJECT NEED:

In May 2007, staff commissioned a study to evaluate all the facilities at Maerle Dam reservoir. The study report identified 20 priority items that need replacement to meet current code requirements for health and safety and to maintain reliability of the water supply source. The replacement of the gas scrubbers was listed as a high priority project.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$225,000	Water Replacement
Construction	\$1,508,100	Water Replacement
Inspection/Admin	\$137,100	Water Replacement
Total Cost =	\$1,870,200	

CAPITAL PROJECT DESCRIPTION

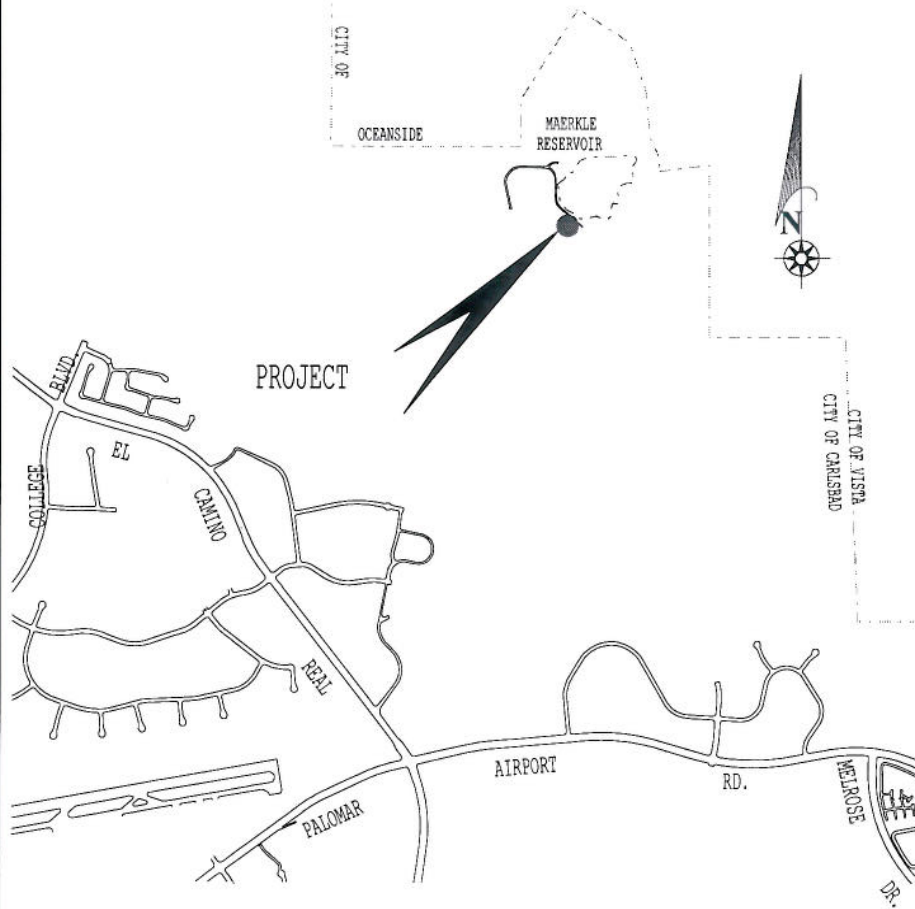
WATER DISTRIBUTION SYSTEM – MAERKLE PUMP STATION

PROJECT NAME

5004
PROJECT NO.

#29(a) & (b)

PROJECT LOCATION MAP:



PROJECT LOCATION:

Maerkle Reservoir.

PROJECT DESCRIPTION:

Enlarge pump station.

PROJECT NEED:

Required for emergency supply from Maerkle Reservoir.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$771,325	Water Connection
Construction	\$771,325	Water Replacement
Total Cost =	\$1,542,650	

CAPITAL PROJECT DESCRIPTION

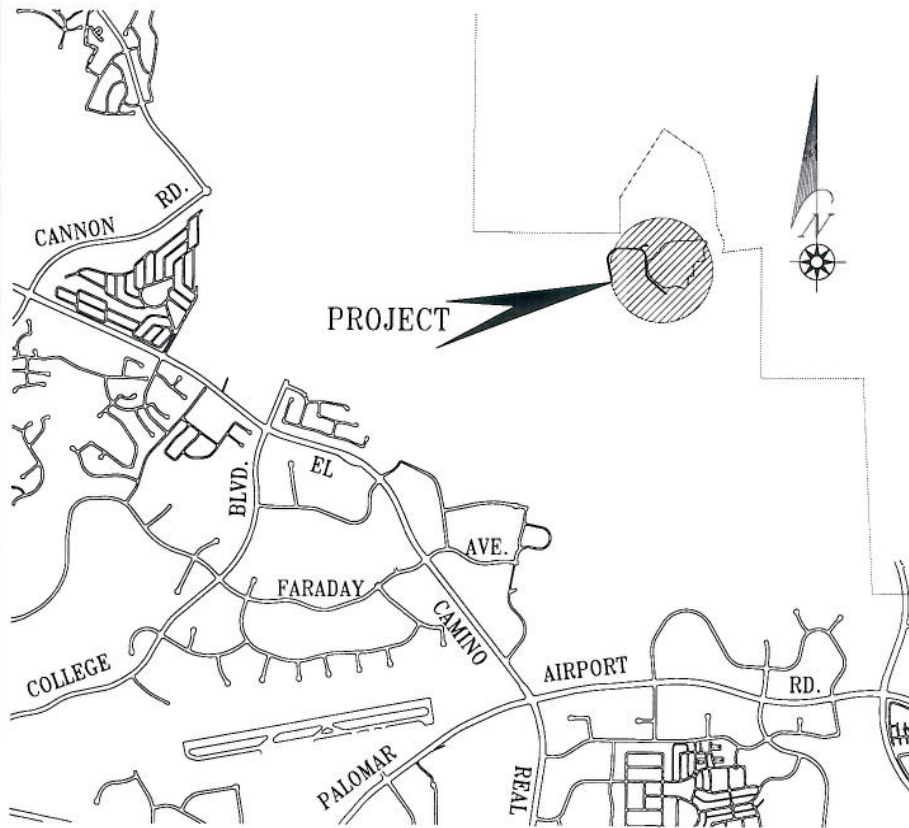
WATER DISTRIBUTION SYSTEM – MAERKLE RESERVOIR BRIDGE REPLACEMENT

PROJECT NAME

5006
PROJECT NO.

#19

PROJECT LOCATION MAP:



PROJECT LOCATION:

Access bridge at Maerkle Reservoir.

PROJECT DESCRIPTION:

Remove existing damaged access bridge and replace with a prefabricated steel truss bridge. It is assumed the existing abutments will be reused.

PROJECT NEED:

Replacement of existing damaged bridge is necessary to maintain site access.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$23,000	Water Capital Replacement
Environmental Review	\$5,750	Water Capital Replacement
Construction	\$300,000	Water Capital Replacement
Total Cost =	\$328,750	

CAPITAL PROJECT DESCRIPTION

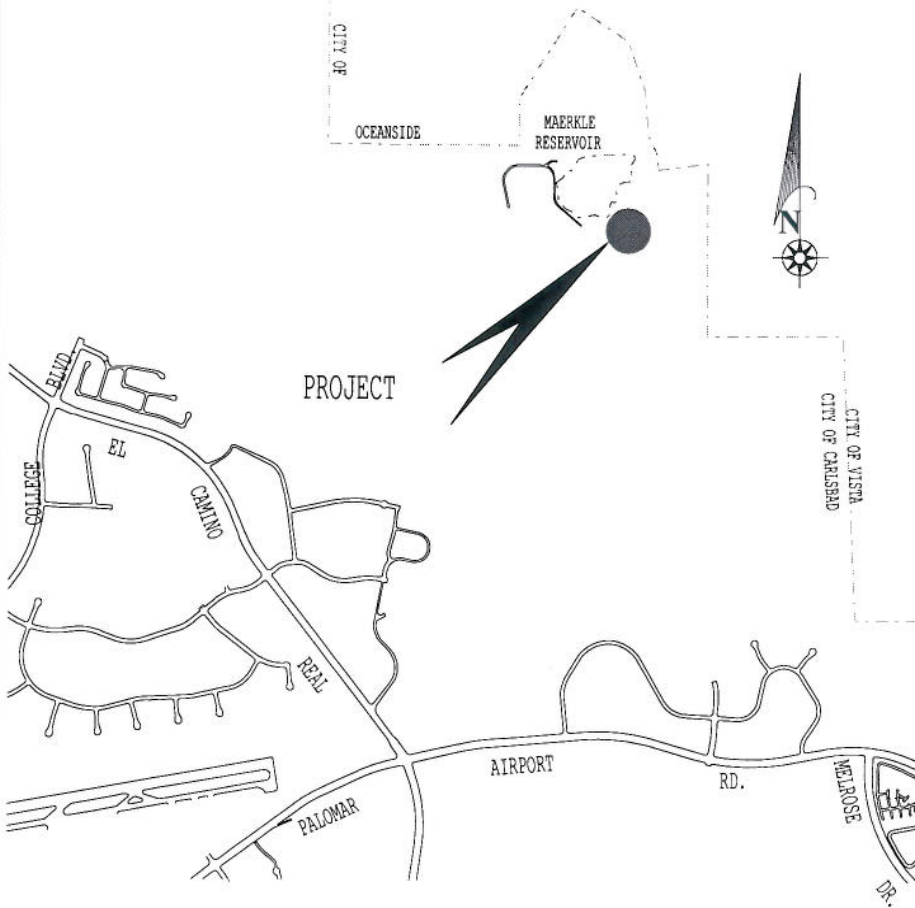
WATER DISTRIBUTION SYSTEM – MAERKLE RESERVOIR STORAGE (TAP #2)

PROJECT NAME

NONE
PROJECT NO.

#28

PROJECT LOCATION MAP:



PROJECT LOCATION:

Adjacent to Maerkle Reservoir.

PROJECT DESCRIPTION:

Construct buried 15 MG water storage reservoir next to existing Maerkle Reservoir.

PROJECT NEED:

Provides additional emergency storage to meet 10-day storage criteria based on ultimate demands.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$12,769,500	Water Connection
Adm/Design/Insp	\$1,475,000	Water Connection
Total Cost =	\$14,244,500	

CAPITAL PROJECT DESCRIPTION

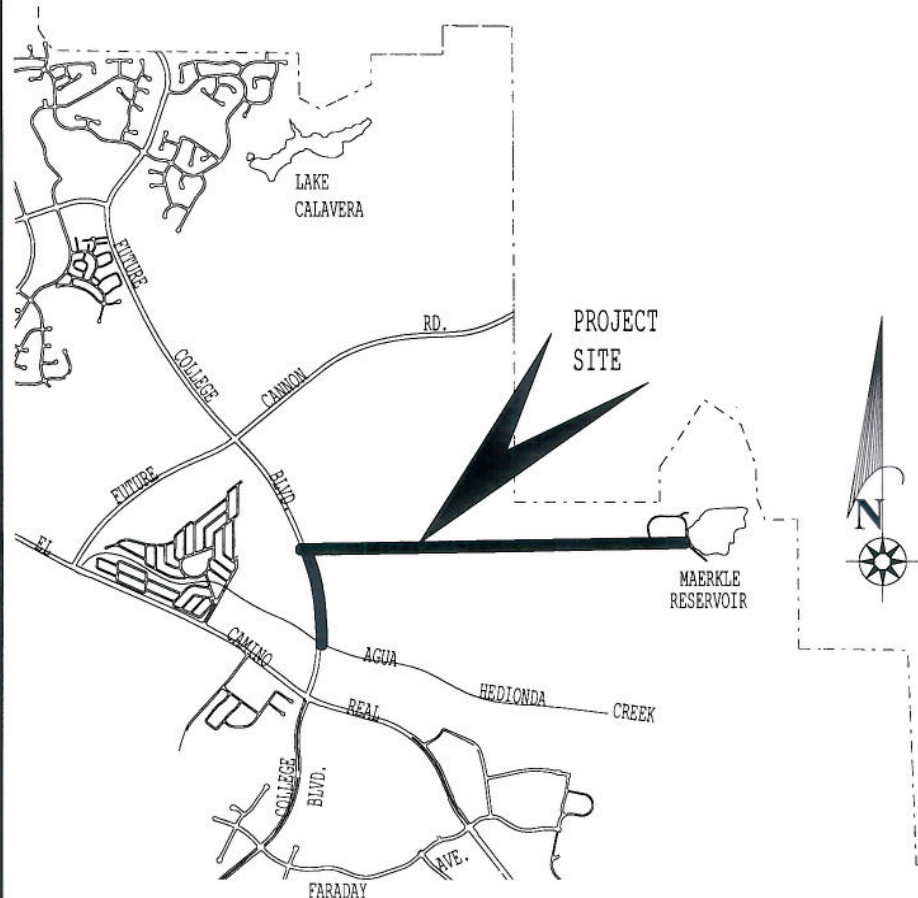
WATER DISTRIBUTION SYSTEM - MAERKLE RESERVOIR TRANSMISSION MAIN

5001
PROJECT NO.

PROJECT NAME

#10 & #11

PROJECT LOCATION MAP:



PROJECT LOCATION:

From Maerkle Reservoir west to the future extension of College Boulevard.

PROJECT DESCRIPTION:

Install 9,300 LF of 36-inch waterline.

(In 490 H.G. Zone).

PROJECT NEED:

Increase supply from Maerkle Reservoir and provide redundant supply pipeline. Supply to new 490 Zone development east of El Camino Real.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Adm/Insp	\$650,000	Water Replacement
Construction	\$4,225,000	Water Replacement
Total Cost =	\$4,875,000	

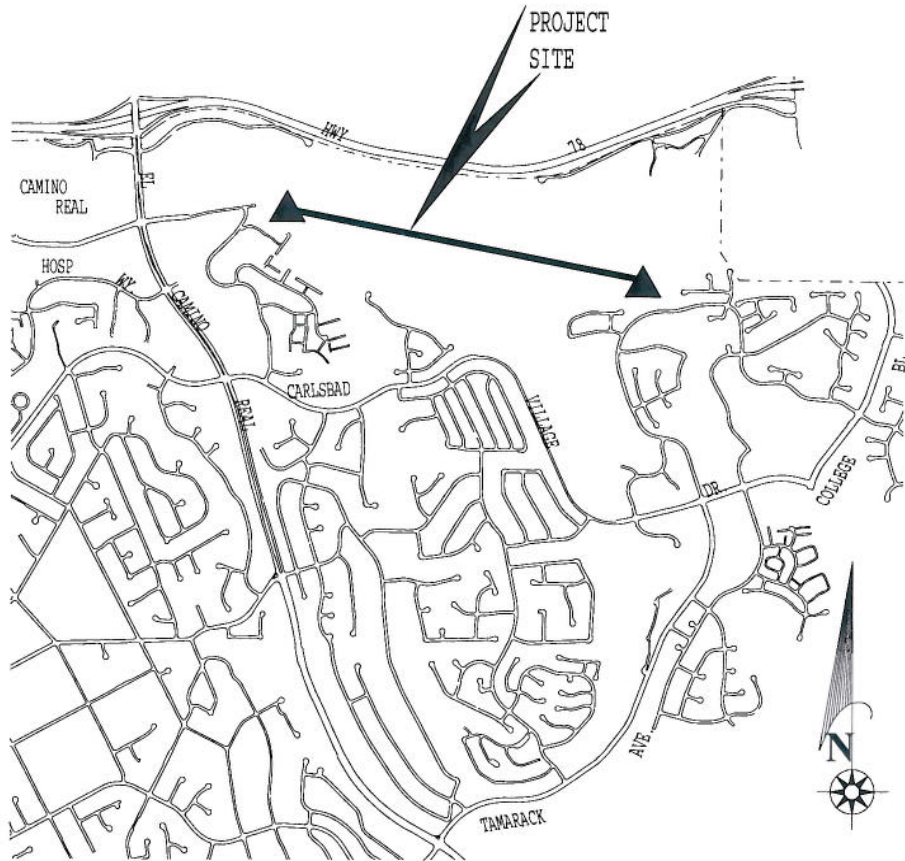
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - MARRON ROAD (PRESSURE REGULATING STATION TO OCEANSIDE)

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Marron Road from Avenida de Anita easterly 6,600 feet.

PROJECT DESCRIPTION:

Install 6,600 LF of 12-inch line and two pressure regulating stations. Developer to pay 50% of cost.

PROJECT NEED:

To meet future demands in accordance with Growth Management Standards. Provide additional supply to 255 Zone.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$767,200	Water Connection
Design/Construction	\$767,200 *	Other - Developer
Total Cost =	\$1,534,400	

*Developer cost not included in CIP schedules.

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – MASTER PLAN UPDATE

NONE
PROJECT NO.

PROJECT NAME

PROJECT LOCATION MAP:

LOCATIONS THROUGHOUT THE CITY

PROJECT LOCATION:

Throughout the City.

PROJECT DESCRIPTION:

Update the CMWD's 2003 Water Master Plan based on anticipated growth projections and obtain necessary CEQA approval through an amendment to the EIR for adoption by City Council.

PROJECT NEED:

The Master Plan update will help identify the need for changes to planned facilities based on the timing of growth projections and Growth Management Standards.

FINANCING:

	<u>Estimated Cost</u>	<u>Funding Source</u>
Study	\$500,000	Water Connection Fee
Total Cost =	\$500,000	

CAPITAL PROJECT DESCRIPTION

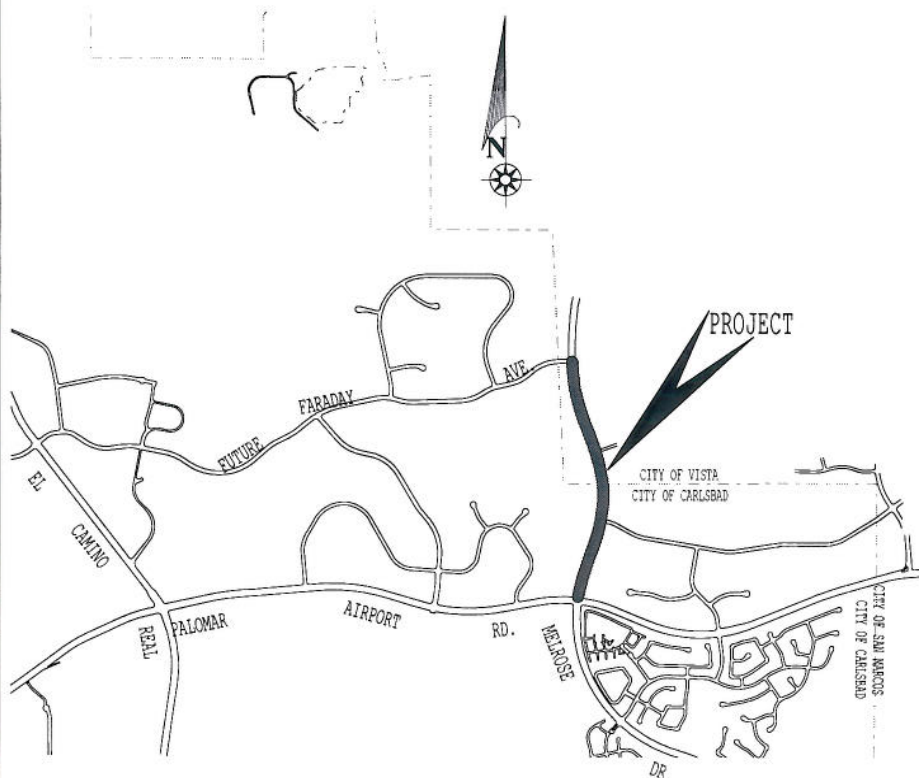
WATER DISTRIBUTION SYSTEM – MELROSE DRIVE PALOMAR AIRPORT ROAD TO FARADAY

PROJECT NAME

NONE
PROJECT NO.

#12

PROJECT LOCATION MAP:



PROJECT LOCATION:

Melrose Drive between Palomar Airport Road and Faraday Avenue.

PROJECT DESCRIPTION:

Construct 4,000 feet of 16-inch watermain.

PROJECT NEED:

Provide looped supply to new North 700 Zone in LFMZ Zone 16 business park. Funds will be used to reimburse developer required to construct 16-inch watermain.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$1,288,500	Water Connection
Adm/Design/Insp	\$186,500	Water Connection
Total Cost =	\$1,475,000	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - MISCELLANEOUS PIPELINE REPLACEMENTS

PROJECT NAME

3904
PROJECT NO.

PROJECT LOCATION MAP:

CITYWIDE

PROJECT LOCATION:

Various locations.

PROJECT DESCRIPTION:

Replace existing small diameter and older pipelines at 14 locations.

PROJECT NEED:

Provide increased water supply to meet fire flow requirements.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$150,000	Water Replacement
Construction	\$1,676,700	Water Replacement
Admin/Inspection	\$50,000	Water Replacement
Total Cost =	\$1,876,700	

CAPITAL PROJECT DESCRIPTION

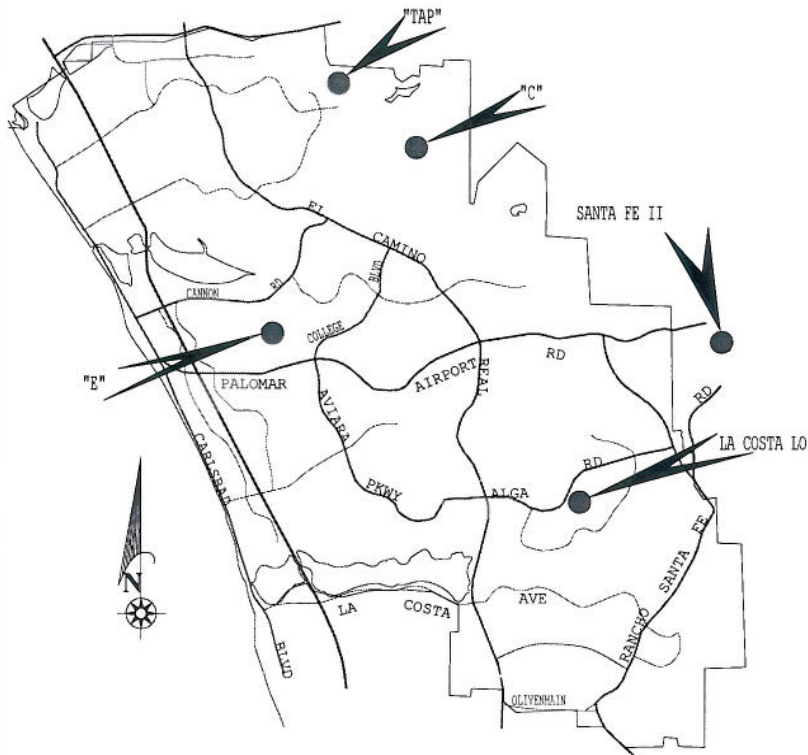
WATER DISTRIBUTION SYSTEM - MISCELLANEOUS WATER RESERVOIR FENCING

PROJECT NAME

3822

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

At various water reservoir locations throughout the City as shown on the map including the TAP, "C", "E", Santa Fe II and La Costa Lo.

PROJECT DESCRIPTION:

Install protective fencing around the identified reservoir sites for safety and security purposes.

PROJECT NEED:

Project is required to protect the existing reservoir sites from vandalism and to ensure safety of the public. Ongoing development in the City has made these once isolated reservoir sites more accessible to the public thus intensifying the need for protective fencing.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$197,399	Water Replacement Fund
Total Cost =	\$197,399	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – MISCELLANEOUS WATER VALVE REPAIR / REPLACEMENT PROGRAM

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:

VARIOUS LOCATIONS

PROJECT LOCATION:

Various locations throughout the Carlsbad Municipal Water District service area.

PROJECT DESCRIPTION:

Ongoing program to repair/replace broken or malfunctioning water valves.

PROJECT NEED:

The repair/replacement of inoperable valves is an integral component of a well-managed valve maintenance program reducing water loss and supports achieving the performance measurement of potable water distribution system integrity. There is a current backlog of broken valves needing repair/replacement.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$250,000	Water Replacement
Total Cost =	\$250,000	

CAPITAL PROJECT DESCRIPTION

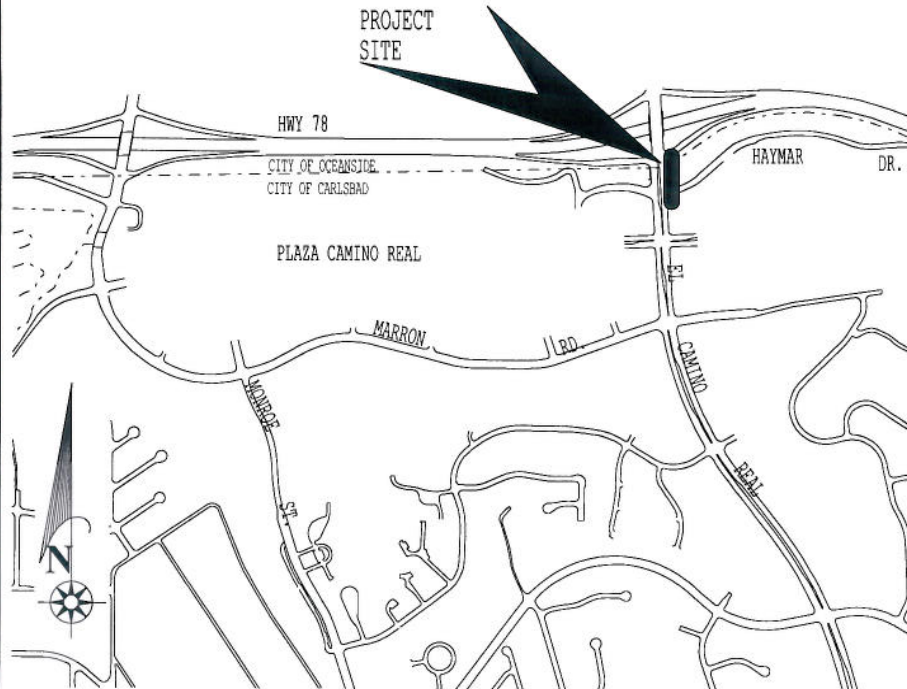
WATER DISTRIBUTION SYSTEM - OCEANSIDE INTERTIE UPGRADE

PROJECT NAME

3531

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

El Camino Real near State Highway 78.

PROJECT DESCRIPTION:

Make improvements to increase reliability of water system intertie with City of Oceanside. System supplies 5 cfs of treated water to Carlsbad. During emergencies and periods of water supply curtailment, the Oceanside intertie provides backup.

PROJECT NEED:

The system requires valve, pipe, and meter replacement.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$114,600	Water Replacement
Total Cost =	\$114,600	

CAPITAL PROJECT DESCRIPTION

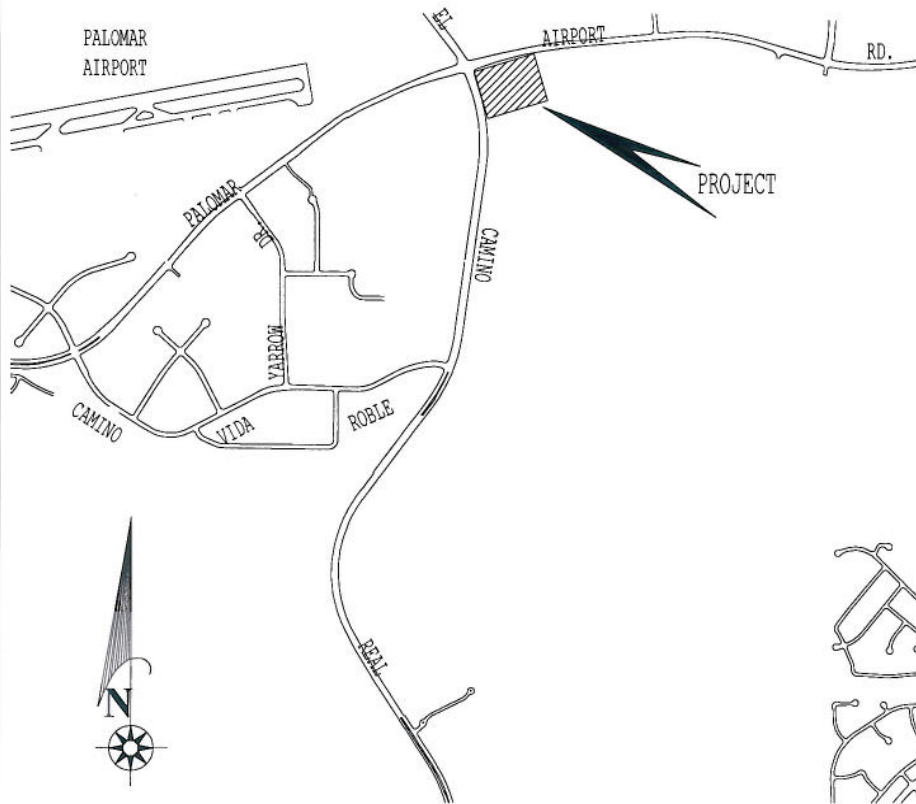
WATER DISTRIBUTION SYSTEM – PALOMAR AIRPORT ROAD/EL CAMINO REAL PUMP STATION

PROJECT NAME

3910
PROJECT NO.

#20

PROJECT LOCATION MAP:



PROJECT LOCATION:

Intersection of Palomar Airport Road and El Camino Real.

PROJECT DESCRIPTION:

Grade site and construct a pump station to supply water from 490 pressure zone to 700 pressure zone.

PROJECT NEED:

To supply water from Maerkle Reservoir (490 pressure zone) to 700 pressure zone during emergencies and during routine maintenance of the imported water aqueducts.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$990,350	Water Replacement Fee
Construction	\$997,350	Water Connection Fee
Total Cost =	\$1,987,700	

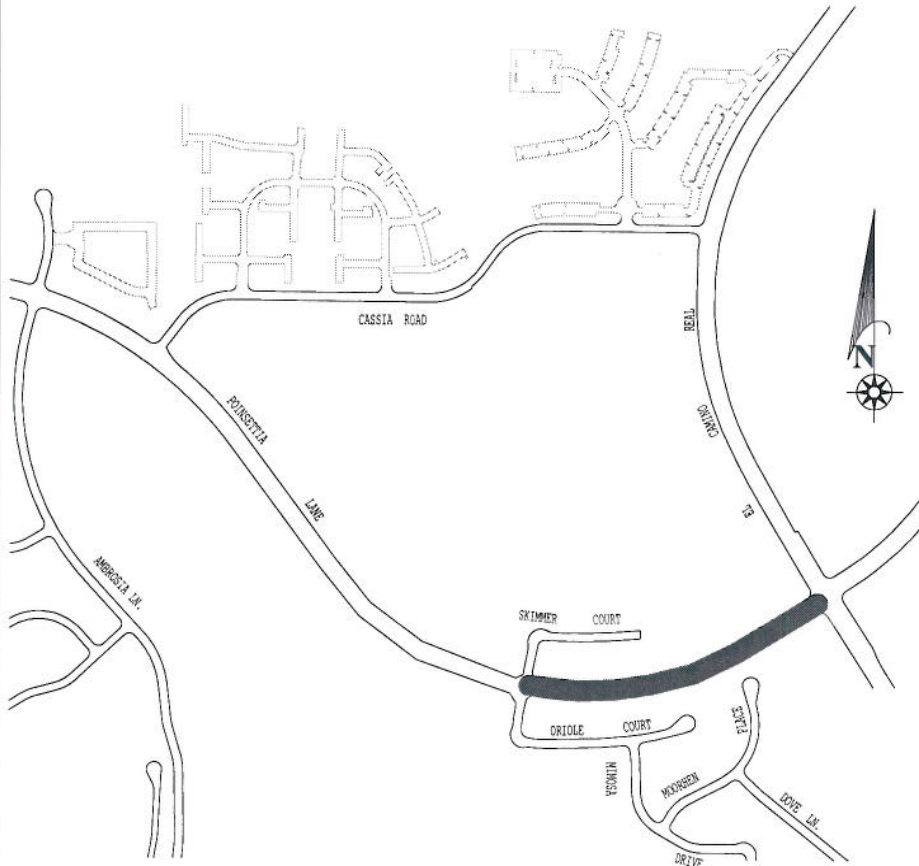
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - POINSETTIA LANE (EL CAMINO REAL TO SKIMMER COURT)

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Poinsettia Lane from El Camino Real to Skimmer Court.

PROJECT DESCRIPTION:

Install 1,300 LF of 12-inch line.

(In 375 H.G. Zone).

PROJECT NEED:

Parallel existing 8-inches to increase capacity in the 375 Zone and supply from 550 Zone. Funds will be used to reimburse the developer required to construct the 12-inch waterline.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$125,700	Water Connection Fee
Total Cost =	\$125,700	

CAPITAL PROJECT DESCRIPTION

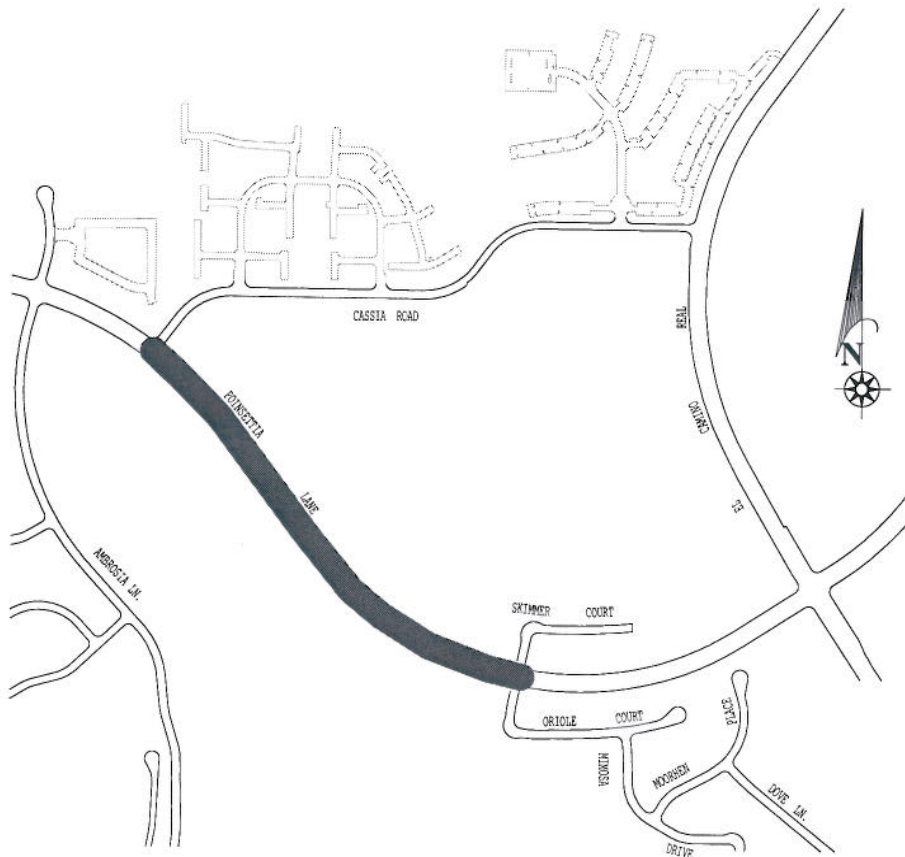
WATER DISTRIBUTION SYSTEM - POINSETTIA LANE (SKIMMER COURT TO CASSIA ROAD)

PROJECT NAME

NONE
PROJECT NO.

#17

PROJECT LOCATION MAP:



PROJECT LOCATION:

In Poinsettia Lane between Skimmer Court and Cassia Road.

PROJECT DESCRIPTION:

Construct 4,500 feet of 12-inch watermain.

PROJECT NEED:

Completes 375 Loop on Poinsettia Lane. Increase capacity to/from D3 Reservoir.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$383,600	Water Connection
Construction	\$489,100	Water Replacement
Total Cost =	\$872,700	

CAPITAL PROJECT DESCRIPTION

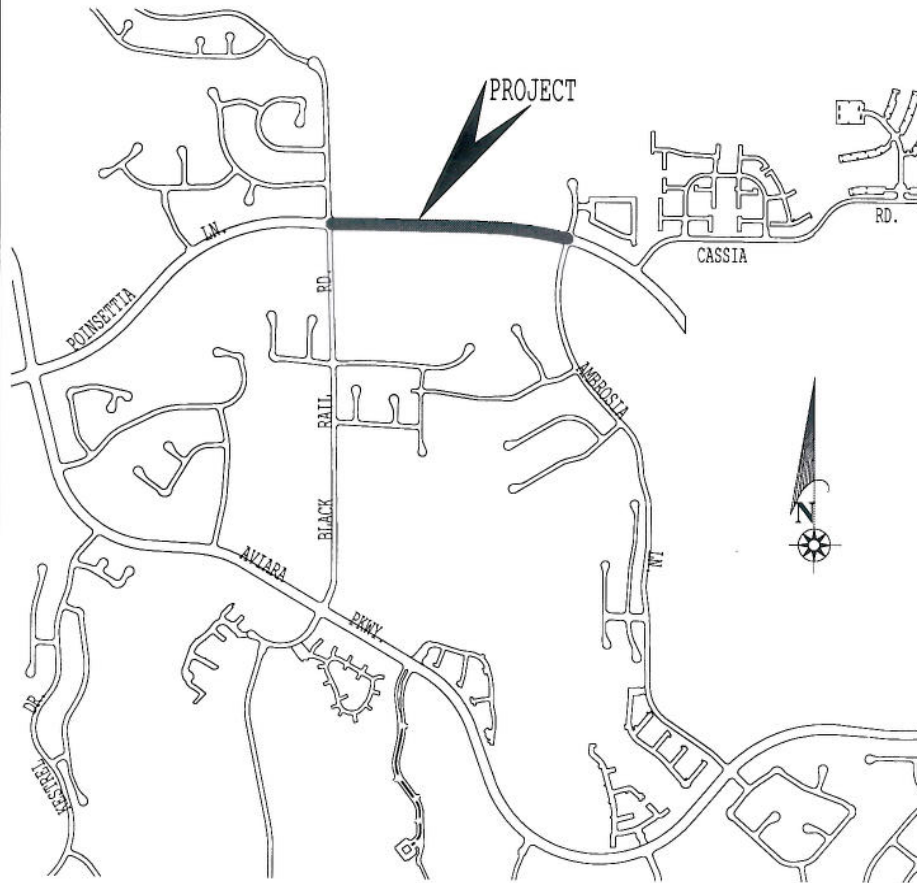
WATER DISTRIBUTION SYSTEM - POINSETTIA LANE EAST OF BLACK RAIL ROAD

PROJECT NAME

NONE
PROJECT NO.

#18

PROJECT LOCATION MAP:



PROJECT LOCATION:

Poinsettia Lane – 1,100 feet east of Black Rail Road.

PROJECT DESCRIPTION:

Construct 1,100 feet of 30-inch watermain.

PROJECT NEED:

Increase supply to 550 Zone and D3 Reservoir.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$235,500	Water Connection
Construction	\$230,400	Water Replacement
Total Cost =	\$465,900	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – PRESSURE REDUCING STATIONS REHABILITATION / REPLACEMENT

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

1	Terrimar	El Camino Real north of Jackspar Drive
2	Lake Shore Gardens	Poinsettia Lane and Avenida Encinas
3	Laguna Riviera	Kelly Drive
4	Kelly	Kelly Drive and El Camino Real
5	Sycamore Creek	Sunny Creek Road

PROJECT DESCRIPTION:

Assess the condition and replacement or upgrade needs of the existing water pressure reducing stations identified above.

PROJECT NEED:

Rehabilitation or replacement of the various pressure reducing stations will continue to provide safe and reliable water service to the areas they serve.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Environmental	\$52,000	Water Replacement
Construction	\$1,050,000	Water Replacement
Total Cost =	\$1,102,000	

CAPITAL PROJECT DESCRIPTION

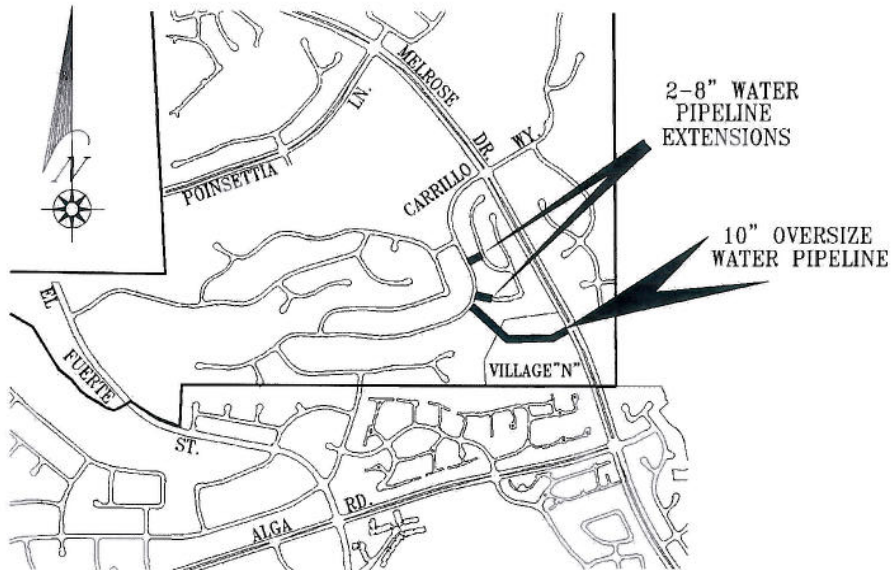
WATER DISTRIBUTION SYSTEM – RANCHO CARRILLO OVERSIZING/EXTENSION

PROJECT NAME

3858

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

The waterline extends from Melrose Drive west along Via Patron and Terraza Portico to an existing waterline in Carrillo Way. Also include are two short extension within Paseo Aspada and Rancho Miel.

PROJECT DESCRIPTION:

Construction of new 8" and 10" water mains. A 10" waterline will be extended from an existing waterline in Melrose Drive to an existing waterline in Carrillo Way through the Village 'N' development of Rancho Carrillo to provide a looped water connection. The project also includes the extension of two 8" lines within Paseo Aspada and Rancho Miel to complete the looped system.

PROJECT NEED:

To meet the future demands of the area and to provide for a looped water line for greater reliability to the existing residents within Village 'N' of the Rancho Carrillo development.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$152,700	Water Connection Fee
Total Cost =	\$152,700	

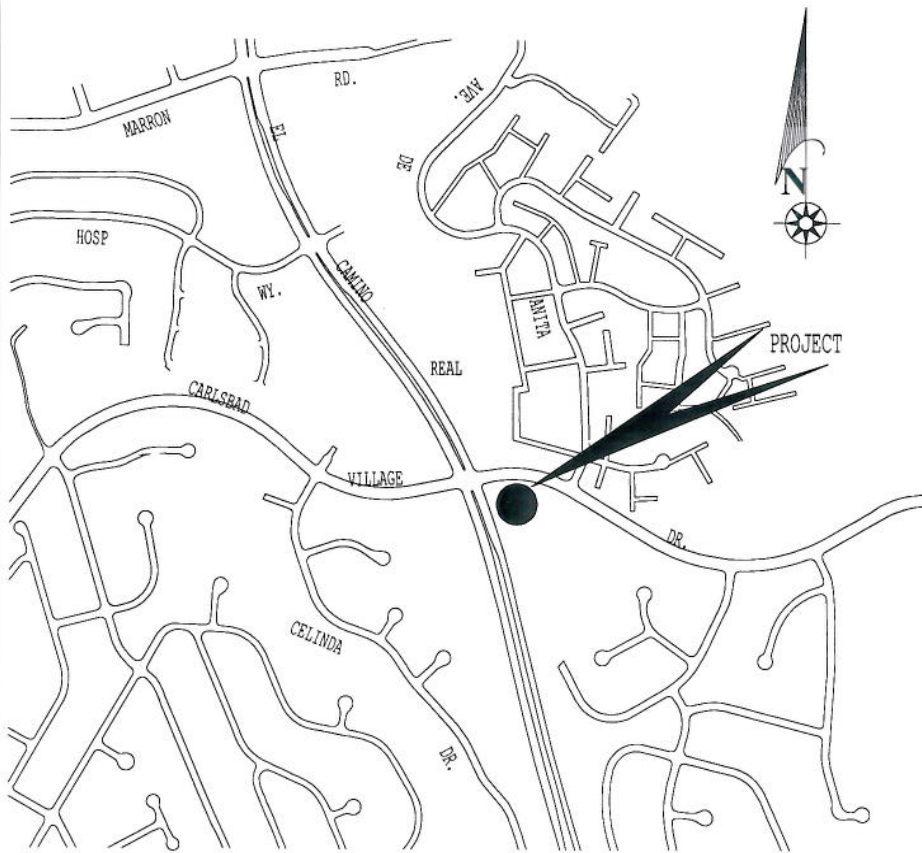
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - TANGLEWOOD PRESSURE REDUCING STATION REPLACEMENT

PROJECT NAME

3915
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Intersection of Carlsbad Village Drive and El Camino Real.

PROJECT DESCRIPTION:

Replace vault, piping and valves of existing pressure reducing station.

PROJECT NEED:

The existing pressure reducing station is to be replaced due to deteriorated condition of vault, valve and piping.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$50,000	Water Replacement Fund
Construction	\$291,500	Water Replacement Fund
Admin/Inspection	\$13,250	Water Replacement Fund
Total Cost =	\$354,750	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – TRI-AGENCY WATER TRANSMISSION PIPELINE

PROJECT NAME

5008
PROJECT NO.

#26

PROJECT LOCATION MAP:



PROJECT LOCATION:

Between the San Diego County Water Authority's Aqueduct to Calavera Pump Station and Maerkle Reservoir.

PROJECT DESCRIPTION:

Replace or rehabilitate the existing 21" water main.

PROJECT NEED:

In previous years, CMWD has experienced five pipeline breaks on this transmission main. A preliminary assessment has been completed recommending repair or replacing the existing water main.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$575,000	Water Replacement
Construction	\$4,950,000	Water Replacement
Adm/Insp	\$80,000	Water Replacement
Total Cost =	\$5,605,000	

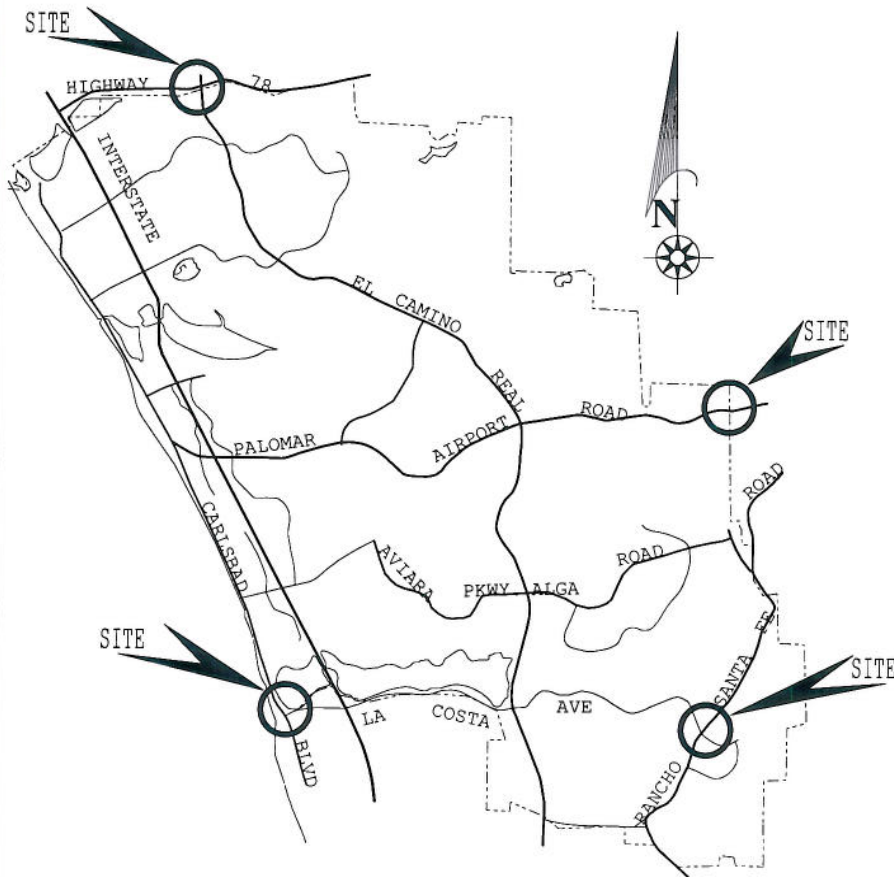
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – WATER SYSTEM INTERTIE CONNECTION STANDBY GENERATOR PROJECT NAME

3664
PROJECT NO.

#37

PROJECT LOCATION MAP:



PROJECT LOCATION:

VID – Business Park Drive
Vallecitos Water District
Olivenhain Water District
San Dieguito Water District

PROJECT DESCRIPTION:

Construct pipeline system intertie with adjacent water agencies including Vista Irrigation District, Vallecitos Water District, Olivenhain Water District, and San Dieguito Water District.

PROJECT NEED:

During emergencies, these interties could supply water to the City and also provide water back to the adjacent agencies.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$439,000	Water Replacement
Total Cost =	\$439,000	

RECYCLED WATER PROJECTS

FUNDING MATRIX FOR RECYCLED WATER PROJECTS

PROJ NO.	FUND NO.	PROJECT TITLE	FUNDING SOURCE	TOTAL BUDGET	FUTURE YEAR BUDGET AMOUNTS						
					YEAR 1 2008-09	YEAR 2 2009-2010	YEAR 3 2010-2011	YEAR 4 2011-2012	YEAR 5 2012-2013	YEAR 6-10 2013-2018	BUILDOUT 2018-2023
		CARLSBAD WATER RECYCLING FACILITY SCADA MODIFICATIONS	WATER REPL	210,000	210,000						
		CHESTNUT AVENUE RECYCLED WATER LINE	WATER REPL	436,100		436,100					
		ECR/TAMARACK PUMP STATION REMOVAL	WATER REPL	80,019			80,019				
5200	52001	I-5 RECYCLED WATER TRANSMISSION LINE	WATER REPL	266,610				133,305			
3487	34871	PUMP STATION REMOVAL	WATER REPL	442,700							
		RECYCLED WATER LINE - BUSINESS PARK AND SEA CLIFF HOA	RECL WATER	230,000	230,000						
		RECYCLED WATER LINE - INNOVATION WAYAND GATEWAY	RECL WATER	675,000	675,000						
3890	38901	RECYCLED WATER PH II - MAHR RESERVOIR IMPROV.	RECL WATER	2,957,000							
3889	38891	RECYCLED WATER PH II - PUMP STATIONS	RECL WATER	4,918,574							
		RECYCLED WATER MASTER PLAN UPDATE	WATER REPL	250,000	250,000						

CAPITAL PROJECT DESCRIPTION

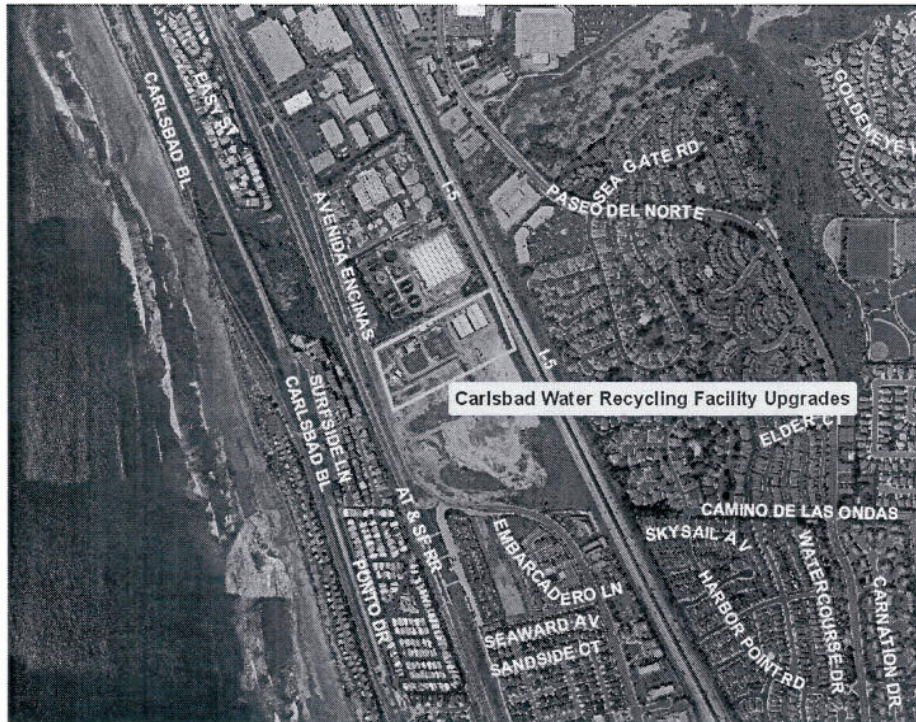
WATER DISTRIBUTION SYSTEM – CARLSBAD WATER RECYCLING FACILITY UPGRADES

PROJECT NAME

NONE
PROJECT NO.

#19

PROJECT LOCATION MAP:



PROJECT LOCATION:

Carlsbad Water Recycling Facility

PROJECT DESCRIPTION:

The project includes the following components:

- Microcomputer Hardware and SCADA Upgrades
- PLC Control Logic and SCADA Modifications
- Combine SCADA Screens

PROJECT NEED:

The Encina Wastewater Authority (EWA) operates and maintains the Carlsbad Water Recycling Facility pursuant to a Memorandum of Understanding between the Carlsbad Municipal Water District and EWA. The improvements are necessary to ensure the efficient operation of the facility to allow for the reliable delivery of reclaimed water to the CMWD.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Construction	\$210,000	Water Replacement
Total Cost =	\$210,000	

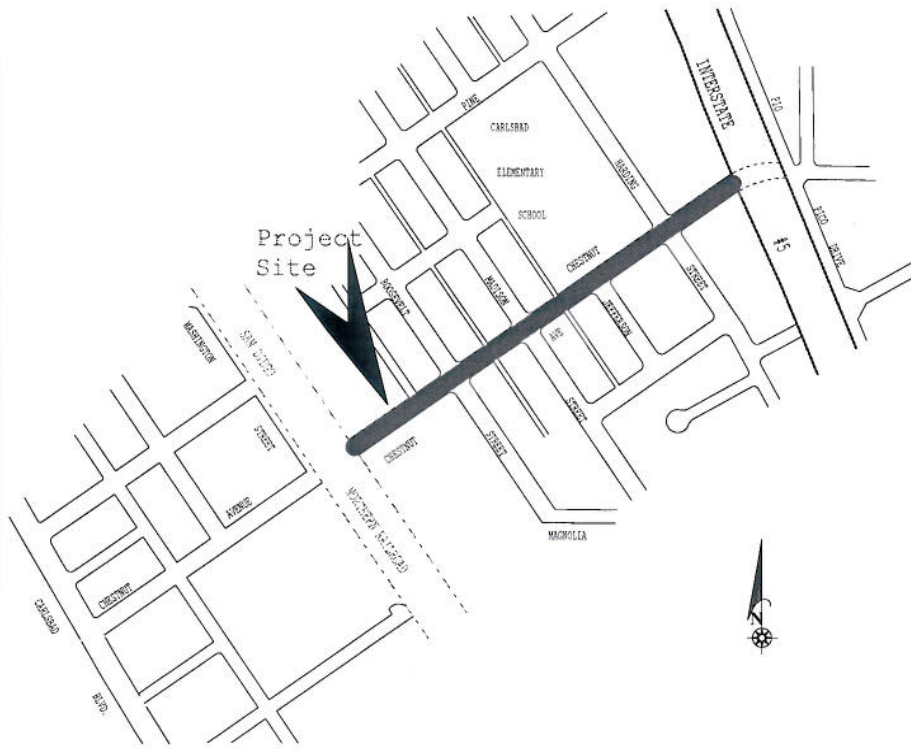
CAPITAL PROJECT DESCRIPTION

RECYCLED WATER PROJECTS – CHESTNUT AVENUE RECYCLED WATER LINE

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Chestnut Avenue from I-5 to SDNR right-of-way.

PROJECT DESCRIPTION:

Construct an 8-inch PVC recycled waterline in Chestnut Avenue from the existing line in I-5 to the railroad right-of-way.

PROJECT NEED:

The new 8-inch line will provide the distribution of recycled water to the future Pine School Park and the Coastal Rail Trail.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Administration	\$17,000	Water Replacement
Design	\$25,000	Water Replacement
Construction	\$394,100	Water Replacement
Total Cost =	\$436,100	

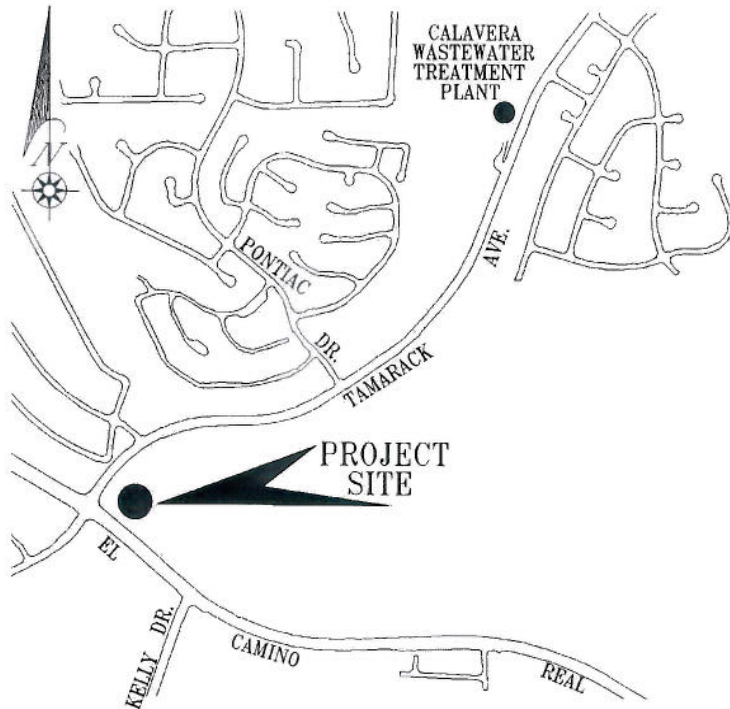
CAPITAL PROJECT DESCRIPTION

RECYCLED WATER PROJECTS – EL CAMINO REAL AND TAMARACK RW PUMP STATION

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Southeast corner of El Camino Real and Tamarack Avenue.

PROJECT DESCRIPTION:

Remove existing pump station and rehabilitate the site.

PROJECT NEED:

Existing pump station was constructed for the Calavera Wastewater Treatment Plant, which is no longer necessary. Removes attractive nuisance and reduces maintenance needs.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$10,000	Water Replacement
Construction	\$53,519	Water Replacement
Admin/Inspection	\$16,500	Water Replacement
Total Cost =	\$80,019	

CAPITAL PROJECT DESCRIPTION

RECYCLED WATER PROJECTS - I-5 RECYCLED WATER TRANSMISSION LINE

PROJECT NAME

5200
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

I-5 Freeway from Palomar Airport Road to Carlsbad Village Drive.

PROJECT DESCRIPTION:

Caltrans installed a transmission main from Poinsettia Lane north to Jefferson Street in 1996. The pipeline was oversized to supply recycled water to areas north of Tamarack Avenue.

PROJECT NEED:

To supply recycled water to Carlsbad north of Tamarack Avenue.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$266,610	Water Replacement
Total Cost =	\$266,610	

CAPITAL PROJECT DESCRIPTION

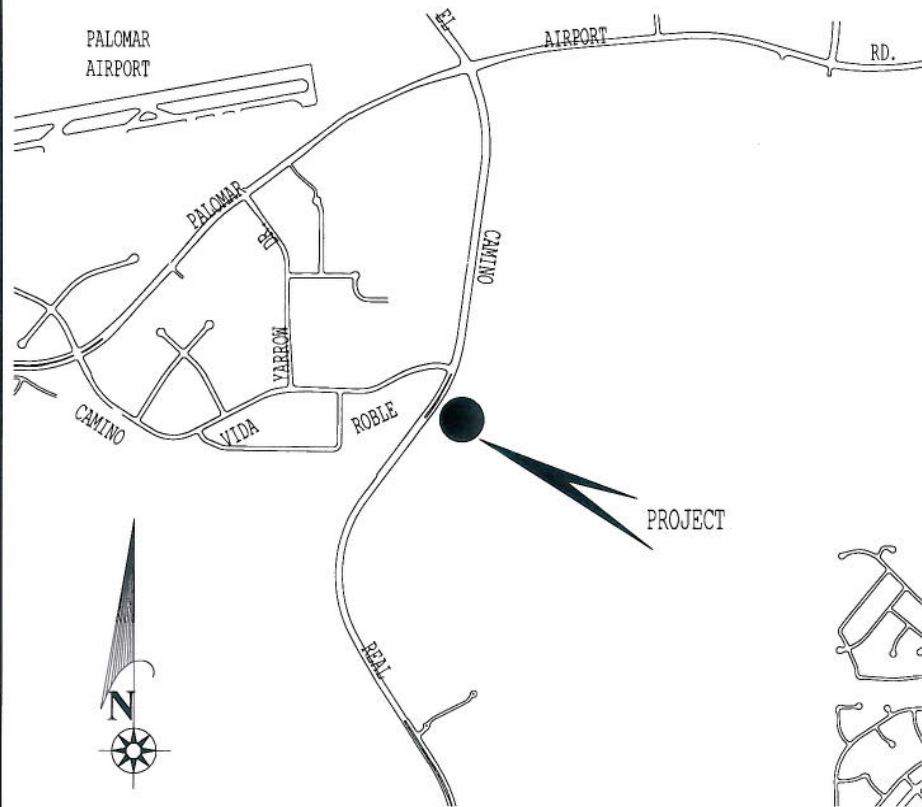
RECYCLED WATER - PUMP STATION REMOVAL

PROJECT NAME

3487

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

El Camino Real south of Palomar Airport Road.

PROJECT DESCRIPTION:

Remove existing pump station and rehabilitate site.

PROJECT NEED:

Upon completion of Encina Basin Phase II and Carlsbad Boulevard Reclamation Facility Projects, existing pump station is no longer necessary.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$442,700	Water Replacement
Total Cost =	\$442,700	

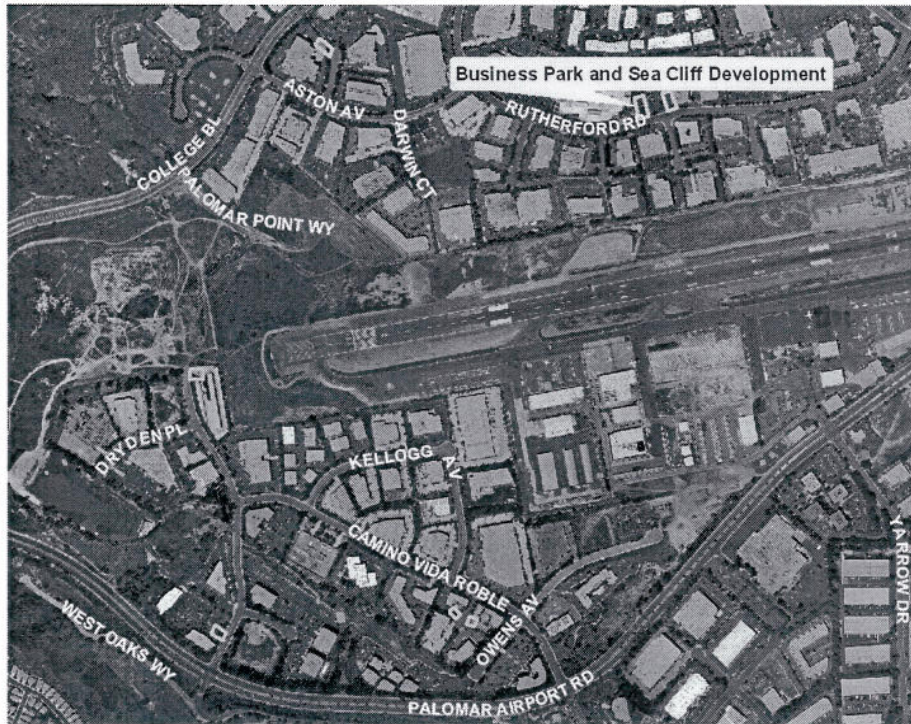
CAPITAL PROJECT DESCRIPTION

RECYCLED WATER PROJECTS – BUSINESS PARK AND SEA CLIFF DEVELOPMENT

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Miscellaneous locations within the Carlsbad Business Park and one location within the Sea Cliff development.

PROJECT DESCRIPTION:

Construction of nine new recycled water service lines within the Carlsbad Business Park and moving one existing service line meter and meter box in the Sea Cliff development.

PROJECT NEED:

In order to serve the 10 sites within the business park and the Sea Cliff development with recycled water, service laterals need to be constructed to these properties.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Administration/Design	\$30,000	Water Replacement
Construction	\$200,000	Water Replacement
Total Cost =	\$230,000	

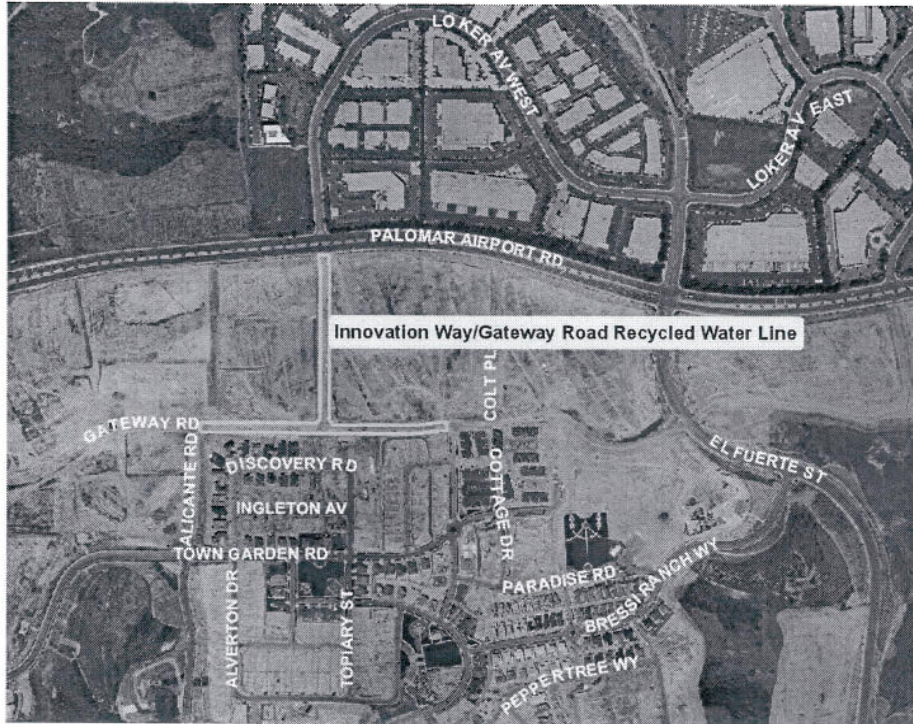
CAPITAL PROJECT DESCRIPTION

RECYCLED WATER PROJECTS – INNOVATION WAY/GATEWAY ROAD RECYCLED WATER LINE

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Innovation Way and Gateway Road.

PROJECT DESCRIPTION:

Construct 2,500 linear feet of 8-inch PVC recycled waterline in Innovation Way and Gateway Road.

PROJECT NEED:

Currently, the 660 HGL zone for the recycled water system does not loop through the Bressi Development project, creating excessive flows and lower water pressure. creating this loop will provide reliability and increased level of service.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Administration	\$50,000	Water Replacement
Design	\$75,000	Water Replacement
Construction	\$550,000	Water Replacement
Total Cost =	\$675,000	

CAPITAL PROJECT DESCRIPTION

RECYCLED WATER PROJECTS – PHASE II – MAHR RESERVOIR IMPROVEMENTS

PROJECT NAME

3890

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

At Mahr Reservoir.

PROJECT DESCRIPTION:

Mahr Reservoir is an existing earthen fill dam constructed in 1982 to store recycled water from the Meadowlark Reclamation Facility. It is located east of Rancho Santa Fe Road just south of Melrose Drive. Both the Meadowlark Reclamation Facility and Mahr Reservoir are owned and operated by Vallecitos Water District (VWD).

PROJECT NEED:

To meet water quality and operation needs for CMWD's recycled water system requires certain improvements be made to Mahr Reservoir. These improvements include:

- Dredging and cleaning the reservoir bottom
- Modifying the inlet/outlet works
- Adding an aeration/destratification system
- Performing miscellaneous site work

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Total Cost =	\$2,957,000	Recycled Water

CAPITAL PROJECT DESCRIPTION

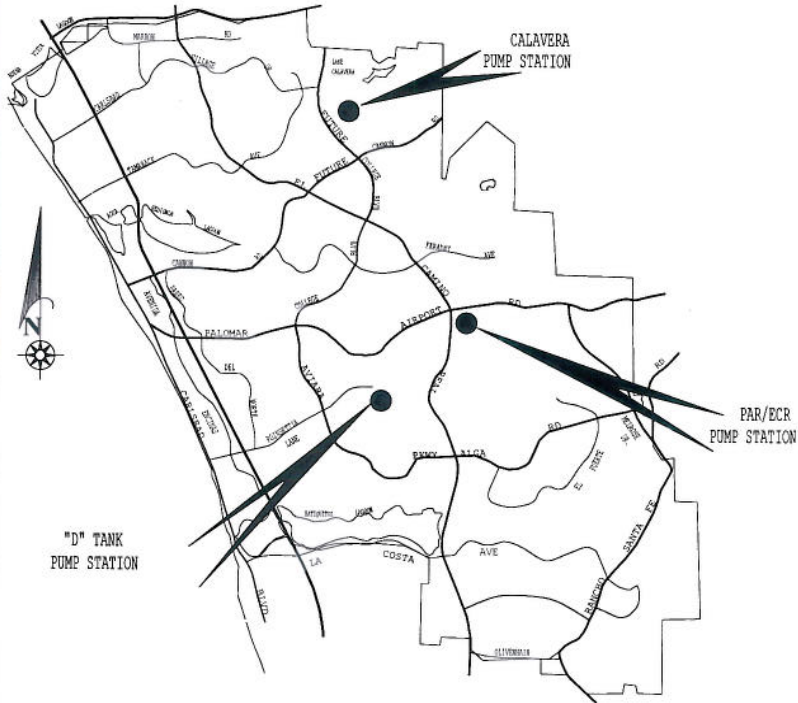
RECYCLED WATER – RECYCLED WATER PHASE II – PUMP STATIONS

PROJECT NAME

3889

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

"D" Tanks, Palomar Airport Road and El Camino Real, and College Boulevard north of Cannon Road.

PROJECT DESCRIPTION:

Construction of pump stations to transport reclaimed water to the following service areas:

- "D" Tank Pump Station (384/550 Zone)
- Calavera Pump Station (550 Zone)
- PAR/ECR Pump Station (660 Zone)

PROJECT NEED:

To reduce the use of potable water by providing reclaimed water for irrigation purposes.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Total Cost =	\$4,918,574	Recycled Water

CAPITAL PROJECT DESCRIPTION

RECYCLED WATER PROJECTS – RECYCLED WATER MASTER PLAN

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:

CITYWIDE

PROJECT LOCATION:

Citywide

PROJECT DESCRIPTION:

Update the CMWD's 2003 Recycled Water Master Plan based on improvements added since 2003 and anticipated growth projects. Project could include the approval of a Program Environmental Impact Report (PEIR).

PROJECT NEED:

The City has experienced significant growth since the approval of the 2003 Recycled Water Master Plan. The update will assist in identifying the need to change planned facilities based on the timing of growth projections and the City's Growth Management Standards.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Environmental	\$250,000	Water Replacement
Total Cost =	\$250,000	